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AIR FORCE SPACE COMMAND

AIR FORCE SPACE COMMAND
INSTRUCTION 10-604

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Operations

SPACE OPERATIONS WEAPON SYSTEM
MANAGEMENT

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This instruction implements Air Force Policy Directive (AFPD) 10-6, *Capabilities-Based Planning & Requirements Development*, AFPD 63-1, *Capabilities-Based Acquisition System*, Air Force Instruction (AFI) 10-601, *Capabilities Based Requirements Development*, AFI 63-101, *Operations of Capabilities Based Acquisition System*, and AFI 99-103, *Capabilities Based Test and Evaluation*. This instruction supersedes Air Force Space Command Instruction (AFSPCI) 10-601, *Declaration of Initial Operational Capability (IOC) and Full Operational Capability (FOC)*. This instruction references Department of Defense Directive (DoDD) 5000.1, *The Defense Acquisition System,* Department of Defense Instruction (DoDI) 5000.2, *Operation of Defense Acquisition System*, National Security Space (NSS) Acquisition Policy 03-01, *Guidance for DoD Space System Acquisition Process*. This instruction outlines the Space Operations Weapon System Management processes of concept development, system development, acquisition, testing, and operations of Air Force Space Command (AFSPC) systems and equipment. It assigns the roles and responsibilities of the planners, developers, operators, and maintainers, and describes the overall processes to conceive, develop, acquire, train, test, and transition a program or system providing space capabilities. This instruction applies to Headquarters, Air Force Space Command (HQ AFSPC), subordinate units, and developing agencies acquiring AFSPC products/services used during testing or operating AFSPC systems or programs. It applies to Air National Guard (ANG) and Air Force Reserve Command (AFRC) units testing, operating, or supporting AFSPC programs or missions. The reporting requirements in this publication are exempt from licensing in accordance with AFI 33-324, *The Information Collections and Reports Management Program*; Controlling Internal, Public, and Interagency Air Force Information Collections. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847s from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123 (will convert to AFMAN 33-363), *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://afrims.amc.af.mil/**. For references and supporting information, see **Attachment 1**.

Chapter 1

INTRODUCTION

1.1. Introduction. This instruction provides guidance to AFSPC organizations that participate in any phase of a Space Operations Weapon System's Management from concept development, to acquisition, through Initial Operational Capability (IOC) and Full Operational Capability (FOC). This instruction captures at a macro level, the various roles and responsibilities during each phase of the weapon system's development and operation for AFSPC organizations. The processes, functions, milestones, roles and responsibilities defined or clarified in this instruction provide definitive, consistent, and standardized terms and processes to be applied to all space capabilities, systems, and programs. The document is not intended to duplicate information contained in other instructions (Department of Defense [DoD], Joint, United States Strategic Command [USSTRATCOM], Air Force, AFSPC) except in those situations where amplification is required. Waivers and requests for clarification and guidance for this instruction should be forwarded through appropriate channels to HQ AFSPC/A3F.

1.2. Headquarters Air Force Space Command (HQ AFSPC). As an operational Major Command (MAJCOM), HQ AFSPC performs organize, train, and equip functions. Additionally, HQ AFSPC provides guidance, prioritization, and oversight to its Materiel Wings and the Science and Technology (S&T) communities to ensure its future needs are met. This instruction serves to establish clear and consistent roles and responsibilities of the appropriate AFSPC organizations and offices during the conduct and implementation of the standardized functions and milestones during concept development, acquisition, operations, IOC/FOC and the transition points between those functions.

1.3. Distinguishing Staff, Acquisition, and Operations Responsibilities. There is a clear distinction between "staff, acquisition," and "operations" responsibilities. Throughout a weapon system's development and operation, there is constant interaction between the "staff," "acquisition," and "operations" functions. The "staff" function encompasses the "organize, train and equip" functions, which includes concept development, requirement identification, and presentation of forces. The "staff" functions originate from HQ AFSPC Directorates (A1, A2, A3, A4/6, A5, A7, A8/9). The "acquisition" function encompasses acquiring and sustaining weapons systems. The "acquisition" functions originate from the Materiel Wing(s) (e.g., Space and Missile System Center). The "operations" function represents the command function originating from Commander, USSTRATCOM (CDRUSSTRATCOM) to the Component Commands (Joint Functional Component Command for Space [JFCC SPACE] and Joint Task Force – Global Network Operations [JTF-GNO]) and extends to the squadrons conducting operations and maintenance (O&M). This instruction mainly describes the "staffing" functions conducted by HQ AFSPC.

1.3.1. For example, space system requirements identification is a "staff" function and acquiring systems that meet the requirements is an "acquisition" function, while the day-to-day operations are an "operations" function. These functions interact at various interchange points during a space system's life cycle. For instance, when declaring IOC for a system, HQ AFSPC/A3 and A5 will function as a "staff" when respectfully operationally accepting the system and preparing the documentation for the AFSPC/A3's signature declaring IOC. CDRUSSTRATCOM accepts operationally ready systems and notifies the appropriate Component Commander the system is available to support operations (the "operations" function) along with any limitations.

Chapter 2

OPERATIONS WEAPONS SYSTEM MANAGEMENT

2.1. Operations Weapons System Management (Capabilities Based Operations Development and Transition). This chapter provides, in general terms, an overview of the development and operation of a weapons system from concept development, requirements identification, development and acquisition, through IOC/FOC. This AFSPCI will provide definitions and/or explanations for each term, breakout of division-level roles and responsibilities, and show timeline flowcharts coupled with functions. Details of each phase are described in subsequent chapters.

2.2. Acquisition Models. AFSPC systems follow two acquisition models. All space related systems follow NSSAP 03-01 while DoDI 5000.2 is the governing instruction for all non-space related systems (i.e., Intercontinental Ballistic Missile (ICBM) and helicopters). **Figure 2.1.,** Acquisition Models, provides a graphic depiction of the two models. This initial instruction specifically addresses the NSSAP 03-01 process. The non-space systems acquisition process will be addressed in a subsequent update to this AFSPCI. All acquisitions models follow the Joint Capabilities Integration and Development System (JCIDS). For space systems acquisition, the term "System CONOPS" as stated in NSSAP 03-01, is defined as "a high-level written description of a space system that identifies the system's purpose, operational assumptions, the desired effects, how the system will be used, and who is envisioned to operate and use it." For the purpose of this instruction, the NSS term "System CONOPS" is analogous to the AFSPC term "Enabling Concept" and will be used throughout the remainder of this document.

Figure 2.1. Acquisition Models.
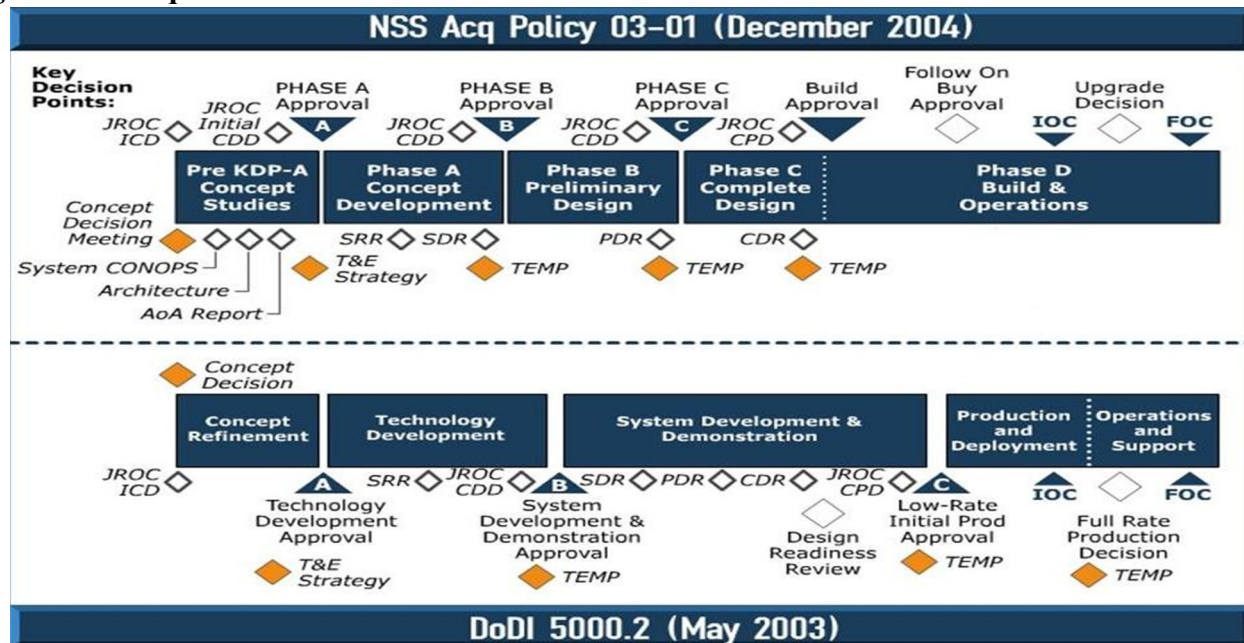
2.3. Joint Capabilities Integration and Development System (JCIDS). JCIDS is closely integrated with the acquisition process and exists to identify, develop, and validate defense-related requirements. JCIDS implements a capabilities-based approach that leverages the expertise of DoD and non-DoD agencies and industry to identify, assess, and prioritize joint force capabilities. The process validates warfight-

ing capability needs while considering the full range of materiel and non-materiel solutions. Within DoD, there is a distinct separation between the requirements authority and acquisition authority, which requires early and continual collaboration between both communities in order for the processes to work effectively together. For further information pertaining to the JCIDS process, refer to CJCSI 3170F, *Joint Capabilities Integration and Development System*, and AFI 10-601. For further information regarding how AFSPC implements the JCIDS process, refer to AFSPCHOI 10-1, *Capabilities-Based Operational Requirements Guidance*.

2.4. Independent Program Assessment (IPA). The purpose of an Independent Program Assessment (IPA) is to advise the Milestone Decision Authority (MDA) on the program's readiness to proceed *successfully* into the next acquisition phase. The IPA is a focused, short duration review of a program that produces an unbiased, structured evaluation of the proposed space acquisition activity. The Independent Program Assessment Team (IPAT) is established to conduct the IPA and to advise the MDA. The IPAT's job is to determine whether the System Program Director/Program Manager has properly identified and quantified program risk areas and then assess whether adequate risk mitigation plans are in place. The focus of the IPA should be on the identification and evaluation of all elements of program risk. The Acquisition Decision Memorandum (ADM) is written by the SPO, reviewed by the IPAT and presented to the MDA for signature. The ADM documents program direction from the MDA and allows transition from one phase to the next. The MDA can request an IPA and ADM at anytime during the entire requirement/acquisition process. For further information, refer to NSSAP 03-01 and SMCI 63-102, *Space Acquisition Board Process*.

2.5. Performance Based Logistics (PBL). Based on pre-determined performance/readiness goals, PBL is DoD's preferred approach for implementing product support that leads to higher levels of weapon system readiness and the reduction of Total Ownership Cost (TOC). PBL strategies shall be developed and implemented in the early phases of design development to optimize total system availability while minimizing cost and logistics footprint as defined in DoDD 5000.1, para E1.1.17. Further information on performance based logistics requirements can also be found in AFI 63-107, *Integrated Product Support Planning and Assessment*, Chapter 2.

2.6. NSSAP 03-01 Model. The NSSAP 03-01 model has five distinctive phases that a weapons system will follow during its life cycle. The five phases as defined in NSSAP 03-01 are Pre Key Decision Point (KDP)-A/Concept Studies, Phase A/Concept Development, Phase B/Preliminary Design, Phase C/Complete Design, and Phase D/Build and Operations. For guidance, Major Defense Acquisition Program (MDAP) programs use NSSAP 03-01, while non-MDAPs in the AFPEO/SP portfolio primarily use SMCI 63-102. The following paragraphs illustrate some of the documents that are written and activities that occur in each phase, but are not all encompassing.

2.6.1. Concept Studies (Pre KDP-A). Prior to the formal start of the acquisition process, the JCIDS Analysis process identifies capability gaps (Functional Area Analysis [FAA] & Functional Needs Analysis [FNA]) and potential solutions to fill these gaps (Functional Solution Analysis [FSA]). Enabling Concepts (EC) are developed by HQ AFSPC/A3 to begin providing operational context to the identified capability gaps/shortfalls. The EC directly contributes to development of the Initial Capabilities Document (ICD). Pre KDP-A formally begins with the validation of the ICD by AFSPC and the Air Force Requirements for Operational Capability Council (AFROCC). The ICD is then validated/approved by either the AFROCC or the Joint Requirements Oversight Council (JROC), depending upon designation. The ICD establishes specific capability needs and Human Systems Inte-

gration (HSI) requirements and metrics for potential solutions to address identified capability gaps. The ICD and analysis studies are conducted to include an Analysis of Alternatives (AoA) to guide the Concept Studies Phase. During this phase the Program Element Monitor (PEM), Command Lead and Materiel Wing are designated. Various teams are started, including an Integrated Concept Team (ICT), an Integrated Planning Team (IPT), an Integrated Test Team (ITT) and a Training Planning Team (TPT). Also, the testing and training strategies are identified, the Training System Requirements Analysis (TSRA) is initiated and the initial Capability Development Document (iCDD) is written by a High Performance Team (HPT) and approved.

2.6.2. Concept Development (Phase A). Phase A begins when the MDA decides the program is ready to proceed to Concept Development. This is Key Decision Point A (KDP-A). During Phase A the Capability Development Document (CDD) is written. Next, the CDD is validated by AFSPC and the AFROCC and then is validated/approved by the JROC. Other documents written and/or updated during Phase A include the System Threat Assessment Report (STAR), the Test and Evaluation Master Plan (TEMP), and the EC. During this time, the TSRA is completed and the System Training Plan (STP) is written/approved. A System Requirements Review (SRR) and System Design Review (SDR) are also accomplished in Phase A. The Materiel Wing initiates the logistics support planning document (i.e., Integrated Logistics Support Planning (ILSP), Life Cycle Management Plan (LCMP), or equivalent), and initiates the IPA. Finally, during this phase, the Air Force Operational Test & Evaluation Center (AFOTEC) determines their level of involvement in a program. An involvement letter signed by the AFOTEC/CC formally establishes AFOTEC's level of involvement or noninvolvement in a program. If not involved, operational testing responsibility defaults to AFSPC.

2.6.3. Preliminary Design (Phase B). The entrance into Phase B starts when the MDA decides the concept has developed sufficiently to warrant designing the actual system and the program has full funding across the Future Years Defense Program (FYDP). This is a Key Decision Point B (KDP-B), the official "Program Initiation" point for a NSSAP 03-01 program. During Phase B, other developments occur, including identifying the operational unit, conducting a Preliminary Design Review (PDR), initiating a Manpower Estimate Report (MER), reviewing and updating numerous documents such as the TEMP, STAR, EC, STP, and CDD.

2.6.4. Complete Design (Phase C). Phase C begins when the MDA decides the program is ready to begin final design development. This is Key Decision Point C (KDP-C). There is a Critical Design Review (CDR) during this phase. The Materiel Wing develops and documents logistics management information and presents it to AFSPC A4/6 for validation and approval. Additionally, many more document updates occur, the initial Operating Concept is developed, the JROC (or AFROCC) approved Capability Production Document (CPD) and the Turnover Agreement (TOA) are written and approved. At this point, an Activation/Transition Steering Group (ATSG), a Project Task Force (PROTAF), and an Integrated Activation Transition Team (IATT) are established.

2.6.5. Build and Operations (Phase D): Phase D begins with the MDA decision to proceed with system production, which is called the Build Approval. The purpose of the Build Approval is to authorize the conduct of all acquisition-related activities associated with fabrication, testing, deploying (e.g., launch) and supporting operations of new space systems. The necessary equipment to do operations (including the system simulator/training suite) is delivered by the Required Asset Availability (RAA) date. Training to the cadre is provided in accordance with the STP. From among the cadre, the unit commander or operations officer will appoint a limited number of Subject Matter Experts (SMEs) in

writing to develop technical documentation, training and evaluation materials, conduct training and evaluation, and support the operations, test, and evaluation process.

2.6.5.1. Other important developments during Phase D include Developmental Test and Evaluation (DT&E) and/or Operational Test and Evaluation (OT&E) or an Integrated Test and Evaluation (T&E), Operations and Maintenance Responsibility Transfer (OMRT). As part of OMRT, the squadron commander determines whether the unit has the required assets and training, to include Tactics, Techniques, and Procedures (TTP) to accomplish its mission in accordance with the transition plan. If so, and after a successful OT&E/Trial Period has been conducted the system is Operationally Accepted (OA) by HQ AFSPC/A3 (or delegated), consistent with the AFSPC/A3 memorandum of 22 March 2007. After OA takes place, a number of other critical developments occur, including the Command Lead and PEM responsibilities are transferred from HQ AFSPC/A5 to HQ AFSPC/A3, Turnover, Mission Activation, and once IOC Plan criteria are met, declaration of IOC. Then the system receives System Certification and finally FOC. NSSAP 03-01 allows for large rate production and requires a full rate production decision. The final life cycle phase occurs at the end of the program/system when the program/system is disposed of or deactivated.

2.6.6. **Attachment 2**, Space Capabilities Processes and Functions Matrix, provides a sequential detailed representation of the AFSPC organizational responsibilities in the NSSAP 03-01 process.

2.7. Space Capabilities Management Process. The AFSPC/CC has oversight of all AFSPC weapon systems. To facilitate this oversight, AFSPC/A3 is responsible for monitoring all AFSPC projects/systems. For projects/systems in development, HQ AFSPC/A5 will solicit information for each system from the respective Command Leads, PEMs, and appropriate offices. For systems which have transitioned to the ops community, HQ AFSPC/A3 will likewise solicit information for each system from the respective Command Leads, PEMs, and appropriate offices. HQ AFSPC/A3 will integrate, document and report this information through a new corporate process, the Space Capabilities Management Process, to the HQ AFSPC 3-letters (Group-level), 2-letters (Board-level), and the AFSPC/CV (Council-level).

2.7.1. Space Capabilities Management areas of concern. HQ AFSPC/A3FI, Space Capabilities Integration and Transition Branch is responsible for consolidating all inputs/observations, monitoring, and developing all required briefings for the corporate process. HQ AFSPCI/A3FI will monitor eight key areas:

2.7.1.1. Concepts/Plans: Monitoring concepts and plans ensures the timely development and staffing of all required CONOPS and plans (e.g., Enabling Concepts, Operating Concepts, Training Plans, Transition Plans, Turnover Agreement (TOA), P-Plans, I-Plans, etc.). For concepts that envision the use of ARC forces, coordination with the applicable component (HQ AFRC or NGB) is mandatory prior to concept approval and publication.

2.7.1.2. Funding: Monitoring monetary support ensures funding is projected and apportioned to the appropriate budgets (e.g., funds available in 3300, 3400, 3500, 3600, 3080, etc.).

2.7.1.3. Infrastructure: Monitoring infrastructure ensures the needed support for new/modified operations is in place (MILCON of facilities, power/standby power, communication links, hardware/software/furniture in place, security, etc.).

2.7.1.4. Manning: Monitoring manning levels ensures properly trained personnel are available to conduct operations (e.g., Manning Estimate Report (MER), UMD update, procure billets, security clearance, etc.).

2.7.1.5. Training: Monitoring training ensures the appropriate level of operations and maintenance training is ready to support operations (e.g., Type 1 training, validated T.O.s, SimCert, Initial Qualification Training (IQT), unit training, crew member certification, etc.).

2.7.1.6. Testing and Evaluation (T&E): Monitoring testing and evaluation ensures all actions required in support of T&E has been completed. (e.g., TEMP, PEO certifies system ready for test, Integrated Test Plan, Test Readiness Review, Initial Operational Test & Evaluation (IOT&E)/ Force Development Evaluation (FDE), etc.).

2.7.1.7. Operational Acceptance (OA): Monitoring the OA process ensures all criteria and documentation are completed in anticipation of an OA declaration (e.g., Deficiency Review Board, no Cat 1 deficiencies, Trial Period complete, ops acceptance letter, etc.).

2.7.1.8. IOC/FOC: Monitoring the IOC/FOC process ensures all required actions and documentation are complete prior to IOC/FOC declaration (e.g., IOC Plan containing IOC criteria, IOC/FOC Readiness Review Board, etc.).

2.7.2. Reporting Procedures. HQ AFSPC/A3FI will compile the information, utilizing a reporting matrix and report it at the group-level by mid-month. In turn, board-level reports will be made quarterly or as required and council-level reports semi-annually. All reports/briefings will utilize an approved format, as determined by AFSPC/A3.

2.8. Roles and Responsibilities. The various general roles and responsibilities during the phases of a system's life are clearly defined in referenced documents listed in **Attachment 1**. Specific roles and responsibilities, by phase, are defined below:

2.8.1. **HQ AFSPC/A1, Directorate of Manpower, Personnel, and Services** :

2.8.1.1. (All) Provides manpower support and expertise as required.

2.8.1.2. (All) Reviews manpower documents as required.

2.8.1.3. (Phase B-D) Responsible for the Manpower Estimate Report (MER).

2.8.2. **HQ AFSPC A2/Directorate of Intelligence:**

2.8.2.1. (Pre KDP-A–B) Leads Intelligence Support Working Group to ensure all intelligence considerations and requirements for the developing system or capability are addressed.

2.8.2.2. (All) Conducts Intelligence Infrastructure Analysis to document intelligence deficiencies, proposed solutions, and assess the level of intelligence support required to achieve mission success at IOC.

2.8.2.3. (All) Provides intelligence data on foreign forces/processes and DoD validated Multi-Service Force Deployment scenarios for use in the IPP process and command studies and analysis.

2.8.2.4. (All) Performs Cross-Program Analysis of intelligence deficiencies within AFSPC purview to consolidate similar requirements and facilitate development of multi-program solutions.

2.8.2.5. (All) Oversees development and approves submission of AFSPC requests for Intelligence Certification, as required by CJCSI 3170.01F.

2.8.2.6. (Pre KDP-A) Prepares intelligence-related text (threat and intelligence programmatics) for JCIDS documents, system level CONOPS/EC, AoAs, Strategic Plans, and other acquisition-associated documents, studies and analysis.

2.8.2.7. (Phase A–D) Coordinates with the national intelligence community to produce system-specific System Threat Assessment Reports/System Threat Assessments as required.

2.8.3. **HQ AFSPC/A3, Directorate of Air, Space and Information Operations:**

2.8.3.1. (All) Serves as Original Classification Authority (OCA).

2.8.3.2. (All) Tracks and reports status to AFSPC/CC of all AFSPC developmental and operational systems.

2.8.3.3. (All) Acts as the focal point for OT&E policy and guidance IAW AFI 99-103, and AFSPCI 99-101, *Operational Test and Evaluation (OT&E) for Space and Intercontinental Ballistic Missile Systems*.

2.8.3.4. (All) Establishes standards, tasks, and formal training requirements for operations training systems, and provides training expertise and guidance IAW AFSPCI 36-2202, *Mission Ready Training, Evaluation and Standardization Programs*, and AFSPCI 36-283, *Space Training System Management*.

2.8.3.5. (All) Acts as lead in developing, documenting, and issuing tactics for space weapons system.

2.8.3.6. (All) Identifies, develops, documents and staffs training requirements in a System Training Plan IAW AFSPCI 36-283.

2.8.3.7. (Pre KDP-A) Develops initial Enabling Concept documents to define warfighters' desired effects, necessary capabilities and sequenced actions.

2.8.3.8. (Phase A-C) Reviews/updates Enabling Concept to support acquisition major milestones/KDPs.

2.8.3.9. (Phase B) Coordinates with HQ AFSPC/A1 to request manpower to operate the system (unless existing manning is used for transition).

2.8.3.10. (Phase C) Approves System Transition Management Plan.

2.8.3.11. (Phase C-D) Develops initial Operating Concept (as matured from the EC) and subsequently reviews/updates to support acquisition milestones/system IOC.

2.8.3.12. (Phase C-D) Plans, programs, and budgets for Operations and Maintenance (O&M) of products/services to be turned over.

2.8.3.13. (Phase D) Assists the Materiel Wing in providing system configuration management.

2.8.3.14. (Phase D) Declares Operational Acceptance (OA) of the system.

2.8.3.15. (Phase D) Appoints a PEM after system turnover to operations.

2.8.3.16. (Phase D) Assumes Training Planning Team (TPT) leadership after operational acceptance, IAW AFSPCI 36-283.

2.8.3.17. (Phase D) Acts as the Change Control Manager (CCM) for Integrated Tactical Warning and Attack Assessment (ITW/AA) systems, once the system is operational, IAW SI 508-10, *Mis-*

sion Integration, Change Control Management, and Test Control for the Integrated Tactical Warning and Attack Assessment (ITW/AA) System.

2.8.3.18. (Phase D) Appoints a Functional Area Manager (FAM) to monitor the organizations and infrastructure associated with the space system IAW AFI 10-201, *Status of Resources and Training System.*

2.8.3.19. (Phase D) Assumes the Command Lead after product/service turnover to operations and assumes the single interface point between the Materiel Wing and Operational Wing for O&M, sustainment, modifications, and minor upgrades.

2.8.3.20. (Phase D) Declares IOC/FOC.

2.8.4. **HQ AFSPC/A4/6, Directorate of Logistics and Warfighting Integration:**

2.8.4.1. (All) Acts as the Designated Approval Authority (DAA). (Information Assurance).

2.8.4.2. (All) Reviews technical data for accuracy and completeness. (Information Assurance).

2.8.4.3. (All) Provides acquisition sustainment/logistics support expertise and technical guidance during the acquisition process.

2.8.4.4. (All) Reviews computer resource and information technology documents as required.

2.8.4.5. (All) Serves as the command representative for Life Cycle Acquisition logistics and Sustainment issues.

2.8.4.6. (All) Ensures all acquisition logistics/sustainment elements are considered and included as appropriate in acquisition activities.

2.8.4.7. (Pre KDP A, Phase B-C) Serves as Chief Information Officer (CIO) for AFSPC, certifying architecture products IAW AFI 33-401, *Implementing Air Force Architectures*, as well as ensuring AFSPC is in compliance with DoD and Air Force guidance on the Department of Defense Architectural Framework (DoDAF) and for developing Service Oriented Architectures (SOA).

2.8.4.8. (Phase B-D) Leads the SATCOM System Expert (SSE) function for those SATCOM systems assigned to AFSPC by CDRUSSTRATCOM until IOC.

2.8.4.9. (Phase B-D) Develops Air Force component structure and supporting OT&E recommendations to USSTRATCOM and appropriate AFSPC office for activation upon system IOC.

2.8.4.10. (Phase C) Validates and approves logistics management information.

2.8.4.11. (Phase C-D) Reviews comprehensive DoD Information Assurance Certification and Accreditation Process (DIACAP) Package and certifies recommendation for completeness and security certification and accreditation process compliance.

2.8.4.12. (Phase D) Issues an approval or interim approval to operate, connect, or test.

2.8.4.13. (Phase D) Participates in initial and critical sparing determinations.

2.8.5. **HQ AFSPC/A5, Directorate of Plans and Requirements:**

2.8.5.1. (All) Maintains day-to-day cognizance of developmental program status through direct interface with developing agencies. Reports status to HQ AFSPC/A3 as requested for input into the Space Capabilities Management Process.

2.8.5.2. (Pre KDP-A through turnover) Advocates the requirements throughout the development/ acquisition program.

2.8.5.3. (Pre KDP-A through turnover) Manages requirements changes.

2.8.5.4. (Pre KDP-A through turnover) Appoints a PEM.

2.8.5.5. (Pre KDP-A through turnover) Appoints the Command Lead for the requirement through the development and testing phases of a program.

2.8.5.6. (Pre KDP-A through turnover) Advocates for the materiel program in the Planning, Programming, Budgeting, and Execution (PPBE) process.

2.8.5.7. (Pre KDP-A through turnover) Acts as the OPR and single interface for Materiel Wing(s) and the Operational Wing(s). Facilitates resolution of issues concerning the delivery of new capabilities among all AFSPC and external organizations.

2.8.5.8. (Pre KDP-A through turnover) Participates in and supports various acquisition meetings, working groups, and reviews as required.

2.8.5.9. (Pre KDP-A through turnover) Ensures logistics support integration throughout the requirements process.

2.8.5.10. (Pre KDP-A through turnover) Chairs the TPT for systems in acquisition IAW AFSPCI 36-283.

2.8.5.11. (Pre KDP-A through turnover) Ensures the required capability is delivered.

2.8.5.12. (Pre KDP-A through turnover) Ensures Program Objective Memorandum (POM) inputs and AFSPC budget actions support all transition activities.

2.8.5.13. (Pre KDP-A) Establishes and chairs the ICT.

2.8.5.14. (Phase B-D) Develops the System Transition Management Plan (STMP) utilizing the ICT.

2.8.5.15. (Phase C-D) Writes and staffs IOC Plan.

2.8.5.16. (Phase C) Establishes and chairs the Activation/Transition Steering Group (ATSG) and formally establishes the IATT.

2.8.5.17. (Phase C-D) Supports and acts as the focal point for DT&E policy and guidance IAW AFMAN 99-103 and AFSPCI 99-101.

2.8.5.18. (Phase D) Supports turnover activities as discussed in paragraph **5.7.**

2.8.5.19. (Phase D) Relinquishes Command Lead and PEM roles/responsibilities to operations (AFSPC/A3 or designee) at system turnover.

2.8.6. **HQ AFSPC/A7, Directorate of Mission Support:**

2.8.6.1. (All) Provides Civil Engineering/Environmental/Infrastructure operational support expertise and technical guidance.

2.8.6.2. (All) Reviews system documentations for physical and information security implications.

2.8.6.3. (All) Participates in initial physical security standard determination as part of the Program Protection Planning (PPP) process.

2.8.6.4. (All) Participates in security related manpower validations.

2.8.6.5. (All) Major construction support for weapons system acquisition will be accomplished using AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*.

2.8.7. **HQ AFSPC/A8/A9, Directorate of Strategic Plans, Programs Analyses, Assessments and Lesson Learned:**

2.8.7.1. (All) Provides guidance regarding the releasability of information to outside agencies and foreign nationals.

2.8.7.2. (All) Develops and delivers a Strategic Master Plan and Integrated Investment Strategy to guide AFSPC capability development and ensure space acquisition priorities align with AFSPC Commander and HHQ guidance.

2.8.7.3. (All) Develops cost constrained Programming Force profiles and semi-constrained Planning Force profiles that optimize Total Obligation Authority (TOA) and build realistic strategic plans and capability roadmaps.

2.8.7.4. (All) Develops integrated plans to ensure high-priority AFSPC capabilities will be sustained beyond the FYDP and identifies new AFSPC capabilities. These plans provide the overall framework and roadmap for space weapons system management to ensure identification and coverage of capability gaps.

2.8.7.5. (All) Chairs the Site Surveys and Beddown Teams. All actions for site surveys and beddown will be accomplished using AFI 10-503, *Base Unit Beddown Program*.

2.8.7.6. (All) Oversees treaty compliance and international affairs issues.

2.8.7.7. (All) Tracks and facilitates lessons learned.

2.8.7.8. (All) Responsible for analytical oversight.

2.8.7.9. (All) Provides space capabilities and operational risk analysis.

2.8.7.10. (Pre KDP-A–B) Identifies and prioritizes Science and Technology efforts to ensure technology investments are aligned with AFSPC capability priorities and will support near and far term system development.

2.8.7.11. (Phase C-D) Develops the Programming Plan (PPlan), as required.

2.8.8. **HQ AFSPC/SE, Safety:**

2.8.8.1. (All) Reviews documents for safety issues as required.

2.8.9. **HQ AFSPC/JA, Judge Advocate:**

2.8.9.1. (All) Reviews all charters requiring cross-command or multi-organization agreements as requested.

2.8.9.2. (All) Provides legal reviews regarding employment of systems' capabilities.

2.8.10. **HQ AFSPC/PA, Public Affairs:**

2.8.10.1. (All) Acts as the focal point for the conduct of public affairs activities regarding specific programs.

2.8.11. **HQ AFSPC/SG, Command Surgeon:**

2.8.11.1. (All) Provides review of potential human factors risk and the required HSI plan.

2.8.11.2. (All) Participates in HPT to ensure the HSI requirements/metrics are integrated into CDD/CPD.

2.8.11.3. (All) Review/coordinates HSI plan.

2.8.12. **Materiel Wing (e.g., Space and Missile System Center [SMC]):**

2.8.12.1. (All) Acquisition specific responsibilities for space system developing agencies are documented in NSSAP 03-01 and DoDI 5000.2.

2.8.12.2. (All) Prepares, maintains Systems Engineering documentation, including systems engineering Plans and Programmatic Environmental, Safety and Health Evaluation. Prepares and submits for approval National Environmental Policy Act documents and a Hazardous Materials Management Plan.

2.8.12.3. (All) Acts as the Single Manager for all configuration control issues, IAW AFI 63-1201, *Assurance of Operational Safety, Suitability, & Effectiveness*.

2.8.12.4. (All) Provides current program performance and execution status to HQ AFSPC as requested.

2.8.12.5. (Pre KDP-A) Participates in JCIDS Analysis process to identify potential material solutions to satisfy capability gaps.

2.8.12.6. (Pre KDP-A - A) The Program Manager is responsible for the Training System Requirements Analysis (TSRA), IAW AFSPCI 36-283.

2.8.12.7. (Phase A-B) Initiates the logistics support plan.

2.8.12.8. (Phase B-D) Designs, develops, procures, integrates, conducts developmental test, and logistically supports the development and sustainment project, including supporting communication systems.

2.8.12.9. (Phase B-C) Works with ICT to help draft the System Transition Management Plan (STMP).

2.8.12.10. (Phase B-D) Designs, develops, procures, integrates, conducts acquisition developmental test, and logistically supports the development and sustainment project to meet the user's operational needs and AFSPC and AETC training requirements. Integrates training systems across weapon systems where applicable.

2.8.12.11. (Phase C) Develops, and documents logistics management information.

2.8.12.12. (Phase C) Establishes the IATT in cooperation with the Operational Wing.

2.8.12.13. (Phase C-D) Prepares and coordinates the Transition Support Plan (TSP).

2.8.12.14. (Phase C-D) Participates in turnover activities and associated document development and approval as defined in paragraph **5.7.**

2.8.12.15. (Phase D) Prepares and submits Certificate of System Readiness to enter OT&E, IAW AFMAN 63-119, *Certification of System Readiness for Dedicated Operational Test and Evaluation*.

2.8.12.16. (Phase D) Provides operations and maintenance training to the operating organization for any new capabilities or interfaces.

2.8.12.17. (Phase D) Prepares and submits, for approval, AF Form 1261, *Communications and Information Systems Acceptance Certificate*, IAW AFI 33-104, *Base Level Planning and Implementation*.

2.8.12.18. (Phase D) Establishes Deficiency Reporting procedures in compliance with Technical Order (TO) 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution*.

2.8.13. **Operating Organization (Wing/Group/Squadron):**

2.8.13.1. (All) Reviews technical data for accuracy and completeness.

2.8.13.2. (Phase B-D) Participates in initial and critical sparing determinations.

2.8.13.3. (Phase B-D) Participates in AFSPC training conferences and TPTs, as required.

2.8.13.4. (Phase C) Established the IATT in cooperation with the Materiel Wing.

2.8.13.5. (Phase C-D) Establishes an internal process utilizing wing resources to address transition, scheduling, fielding, training, manning and other programmatic issues.

2.8.13.6. (Phase D) Develops Implementation Plan(s) (IPlan).

2.8.13.7. (Phase D) Develops/revises backup operations contingency plans.

2.8.13.8. (Phase D) Provides host-base support as requested and available.

2.8.13.9. (Phase D) Supports the developing agency in the conduct of the appropriate installation readiness reviews for each operational capability and ensure any "turnover deficiencies" are identified.

2.8.13.10. (Phase D) Supports testing activities as required.

2.8.13.11. (Phase D) Ensures receipt of sufficient training, IAW AFSPCI 36-2202.

2.8.13.12. (Phase D) Evaluates and certifies crewmembers on new systems.

2.8.13.13. (Phase D) Approves Operational and Maintenance Responsibility Transfer (OMRT).

2.8.13.14. (Phase D) Ensures all requirements for system acceptance have been met and unit(s) is/are ready to assure operation and maintenance responsibilities upon turnover.

2.8.13.15. (Phase D) Participates in the turnover activities as described in paragraph **5.7.**

2.8.13.16. (Phase D) The unit training office and standardization and evaluation office will develop programs as described in AFH 36-2235, *Information for Designers of Instructional Systems* Vol. 11, AFSPCI 36-283, *Space Training System Management*, AFSPCI 10-1202, *Crew Operations*, and AFSPCI 36-2202, and ensure programs are compliant prior to operational acceptance/IOC.

2.8.14. **Testing Agencies:**

2.8.14.1. (All) Participates in the Air Force acquisition process without undue influence by development agencies, development contractors, or users.

2.8.14.2. (Phase A) Determines whether new system or upgrade warrants AFOTEC involvement.

2.8.14.3. (Phase D) When directed, manages and/or participates in the planning, conduct, and reporting of multi-service, multi-agency, DoD, and Air Force operational test activities.

2.8.15. **SATCOM System Expert (SSE) (Post IOC):**

2.8.15.1. (Phase D) For legacy (operational) systems, works with pre-IOC SSE (HQ AFSPC/ A6MZ) to ensure viability of legacy system transition and implementation plans for space, terminal, and control segments.

2.8.15.2. (Phase D) Helps define and participates in satellite and control segment testing to determine selected operational performance and characterization parameters, as required.

Chapter 3

CONCEPT STUDIES AND DEVELOPMENT

3.1. Concept Studies and Development. In developing a new capability, identification of a capability gap/shortfall occurs through the IPP and AFSPC begins to research how to fill that gap/shortfall. This is Pre KDP-A. An initial EC is written and various alternative solutions are analyzed. A system-level Concept Decision identifying the preferred solution(s) is made and an ICD is written, coordinated and approved. Phase A begins when the MDA decides the material solution being studied has promise of filling the capability gap/shortfall, adequately addresses HSI requirements, and warrants development.

3.2. Concept Development. Concept development provides the cornerstone for the planning and acquisition of space capabilities. According to AFSPC/CC Concept Development Policy (18 December 2006), AFSPC will not pursue acquisition programs without well thought out and approved concepts. Concepts describe the ways in which we employ military means to accomplish desired ends. As ideas mature into requirements and funded programs, concepts will mature in detail and lead the requirements and acquisition processes. Success will be measured by how well concepts with potential are developed prototyped, and integrated into the joint force. AFSPC concepts will be developed IAW AFSPCI 10-102, *Air Force Space Command Concept Development,* and be consistent with existing higher-level guidance as applicable.

3.3. The Integrated Planning Process (IPP). AFSPC uses its IPP to develop an executable Investment Strategy. The IPP and processes defined in this AFSPCI are closely aligned. Through the IPP, AFSPC identifies, defines and prioritizes needed capabilities, determines shortfalls that must be filled through modernization and transformation, assesses HSI requirements, and develops a fiscally and technologically achievable plan. The IPP follows phases known as FAA to determine, categorize and prioritize the basic functions the command must perform; FNA that identifies and prioritizes the capability shortfalls; FSA to assess possible materiel solutions to the shortfall; and Integrated Investment Analysis (IIA) to determine the optimal force structure given resource constraints. Outputs required by the HQ AFSPC/A3/A5 in support of this AFSPCI include a capabilities needs list (shortfalls), an analysis of solutions and some initial MAJCOM-level FSA data for JCIDS and the results of IIA that include system roadmaps (out year funding profiles, IOCs, EOLs and other key milestones.) The IPP is managed by HQ AFSPC/A8/9, although the process involves organizations across AFSPC, the DoD, Joint, National, and Civil space communities.

   3.3.1. Mission Area Teams (MAT). MATs are a key command-wide element of the IPP. They are comprised of subject matter experts from across the command. They are organized by doctrinally recognized functional areas of Space Force Application (SFA), Space Force Enhancement (SFE), Space Control (SC), Space Support (SS) and Mission Support (MS). These MATs evaluate the current and future status of each space and missile capability, to include the dedicated support infrastructure (communications, sustainment, IT, facilities, etc.) within the MAJCOM.

   3.3.2. HQ AFSPC/A8X appoints leads for each of the AFSPC MATs to facilitate process execution. The first three phases of the IPP; FAA, FNA and FSA are aligned with AF Capabilities-Based Planning (CBP) process. These phases are evaluated essentially without resource constraints. AFSPC adds a fourth phase, Integrated Investment Analysis (IIA), to produce a cost-constrained investment plan.

3.4. Integrated Logistics Support. The logistics support elements are critical factors in the early phases of design development that ensure system supportability when it is turned over for operations and sustainment. The Command Lead, with the support of the appropriate HQ AFSPC Directorates and the Operational Wing(s), will ensure the Materiel Wing(s) integrate the logistics-related readiness, combat capability, systems commonality, and supportability design parameters into program system and equipment design. As defined in AFI 10-602, ***Determining Mission Capability and Supportability Requirements***, consideration shall be given to manpower, personnel, maintenance, supportability, systems engineering, data management, supply, transportation, configuration management, and training. Each of these factors must be integrated and addressed throughout the life cycle of the program. Further information on logistics elements can also be found in AFI 63-107, and AFSPCI 63-102, ***Acquisition, Turnover, and Support Policy for AFSPC Systems and Equipment***.

3.5. Training. The training system is an integral part of each prime mission system. As such, it is a systematically developed curriculum, including, but not necessarily limited to, courseware, classroom aids, training simulators and devices, operational equipment, embedded training capability, and personnel to operate, maintain, and/or employ a system. The training system also includes all necessary elements of logistic support.

3.5.1. The training system is a significant cost driver and must not be an afterthought in the acquisition and development of the mission system. The training system must receive the same visibility, funding, and documentation priority as the operational mission system it supports. Also, AFSPC shall fund training system modifications if the prime mission systems are modified or updated, to ensure the training systems remain current with systems in the field. Primary mission systems shall not be modified if there is insufficient funding to modify both the operational mission system and the training system.

3.5.2. Training System Planning in Pre KDP-A. In Pre KDP-A, the HQ AFSPC/A5 branch chief responsible for the prime weapon system will form and co-chair the Training Planning Team (TPT) along with AETC; the Command Lead will serve as an alternate chair, and initiate Training System Requirements Analysis (TSRA) studies. AETC will provide Instructional System Development (ISD) expertise, and help develop training requirements for new systems and programs. AFSPC will develop, fund, acquire, and maintain training system devices based on a TSRA and approved System Training Plan (STP). A comprehensive plan for training shall be in place early in the acquisition process to optimize total system performance, minimize total ownership costs, and ensure that the training system is built to accommodate the needs of the users.

3.5.3. Training System Requirements Analysis. The TSRA lays the foundation for ISD. The TSRA should be an unbiased analysis of training requirements. Consequently, it should not be part of the contract except to include technical support to the TSRA developer. In Pre KDP-A, the SPO Program Manager, working in conjunction with representatives from HQ AFSPC/A5, HQ AFSPC/A3, HQ AFSPC/A6, and AETC initiates TSRA development. The TSRA shall be conducted by ISD experts. It may be conducted by AETC, or the TPT may choose instead to place the TSRA on a separate contract.

3.5.4. The TSRA must be complete and delivered to the TPT within Phase A, no later than 90 days prior to SRR. The TPT will validate the TSRA products for use in the design of the Training System. The TSRA consists of four reports: the Mission/Task Analysis Report (MTAR), the Training Requirements Analysis Report (TRAR), the Objectives/Media Analysis Report (OMAR), and the Training Systems Basis Analysis Report (TSBAR).

3.5.5. System Training Plan (STP). The TSRA and the decisions of the TPT will be documented in the STP which must be approved NLT SRR. Training systems to be used in operational training/eval-uation environments must be approved by HQ AFSPC/A3T, who serves as the MAJCOM Functional Manager for operational training systems. The approval authority for the STP is HQ AFSPC/A5, after coordination with affected functional areas within AFSPC, the Materiel Wing(s), and HQ AETC. Once approved, the STP is directive in nature. The exact composition of the STP is at the discretion of the TPT, based upon direction within AFI 36-2251, *Management of Air Force Training Systems* and AFSPCI 36-283. It is expected that the initial STP will be approved with some portions as "to be determined" (TBD). These will be updated during the design phase. The training system performance requirements, once approved in the STP, shall be documented in the prime mission system CDD and form the basis for the training system portions of the System Specifications (A-Specs).

3.6. Teams. During the acquisition and development phases, the need to establish various teams to mon-itor and refine requirements is vital to the successful deployment of new capabilities. Six of the major teams are discussed below:

3.6.1. Air Force High Performance Team (HPT). An AF/A5RD facilitated HPT must be used to develop capabilities-based requirements documents unless waived by AF/A5R at the Requirements Strategy Review (RSR). An HPT consists of a lead (normally the sponsor), core and support team members (ideally 7 - 11 members, consisting of SMEs from the Air Force, government agencies, and other services as required). Support team membership provides "reach-back" expertise in areas not represented by the core team. The HPT accelerates the documentation process and increases the potential for a quality document. Its overarching objective is to capture, articulate, and document the operator's requirements in minimum time, while achieving stakeholder buy-in. Documents generated by an AF/A5RD-facilitated HPT are allowed to conduct simultaneous Air Force, Joint Staff, Service, and Agency coordination, whereas, non-HPT documents are staffed sequentially.

3.6.2. Integrated Concept Team (ICT). The ICT is normally an action officer-level working group. The ICT is formed and chaired by the HQ AFSPC/A5 Command Lead and will ensure HQ AFSPC/A3 participation. The ICT assists the Command Lead in defining the requirements and coordinating the requirements documents per AFSPCHOI 10-1. In addition to the responsibilities defined in AFSPCHOI 10-1, the ICT ensures the concepts discussed during the requirements process are incor-porated throughout the acquisition process. The ICT is responsible for writing the STMP and other responsibilities as designated in **Attachment 2.**

 3.6.2.1. Site Survey/Beddown. The site survey/beddown team chair is HQ AFSPC/A8 with team membership composition from the Materiel Wing, HQ AFSPC/A3, and HQ AFSPC/A5. The site survey/beddown team will report all activities to the ICT. Team activity will be IAW AFI 10-503.

3.6.3. Integrated Planning Team (IPT). The Materiel Wing's designee will form, determine team membership, and lead an IPT to support the development of strategies for acquisition of the new prod-uct/service. IPTs may include participation from both government and industry, including program contractors and sub-contractors.

3.6.4. Training Planning Team (TPT). The TPT is formed and co-chaired by the HQ AFSPC/A5 branch chief and AETC; the Command Lead will serve as an alternate chair, who also determines team membership. The TPT is the primary body for identification of training requirements in the acquisition and management of training systems. Membership changes as the program matures and

the system is fielded; however, the TPT conducts planning and management activities throughout the system life cycle. TPT responsibilities are defined in AFSPCI 36-283.

3.6.5. Integrated Test Team (ITT). An ITT will be formed during the Concept Studies phase to create and manage the T&E strategy for the life of each program. Formal direction for establishing the ITT will be in the new program's first ADM. The ITT's construct is central to carrying out seamless, integrated verification and replaces the old Test Planning Working Group (TPWG). The PM and a member of the operational test organization will co-chair the ITT using general T&E principles such as tailoring, early tester involvement, early deficiency resolution and event-driven schedules and exit criteria. ITT membership will include representatives from the responsible test organization (RTO), operational test organizations, participating test organizations (PTO), system contractors, and the acquisition, requirements, and other organizations as necessary. See AFI 99-103 for additional ITT details.

3.6.6. Intelligence Support Working Group (ISWG). The ISWG is formed and led by an HQ AFSPC/ A2 action officer. The ISWG brings functional representatives from the intelligence, requirements, acquisition, and operations communities together to ensure all intelligence considerations for the system are addressed. The goal of the ISWG is to derive and develop the intelligence requirements and deficiencies, to research and develop potential solutions to the deficiencies, to create action plans to accomplish those solutions and document the results. See AFI 14-111, ***Intelligence in Force Modernization*** for additional detail

Chapter 4

PRELIMINARY DESIGN THROUGH COMPLETE DESIGN

4.1. Preliminary Design through Complete Design. Phase B starts when the MDA decides the concept has developed sufficiently to warrant putting pen to paper to design the actual system. Phase C begins when the MDA decides the program is ready to begin final design development and has the funding across the FYDP. This chapter describes the "Staffing" functions conducted by HQ AFSPC.

4.2. Manpower Estimate Report (MER). Upon determining which unit will operate the system, HQ AFSPC/A3 will notify HQ AFSPC/A1, who coordinates and develops the MER with the determined unit. The MER is used to communicate the required levels of manpower needed for system engineering development or production and deployment to the Secretary of Defense (SECDEF). HQ USAF/A1M tasks HQ AFSPC/A1 to develop the MER at the request of the developing agency through SAF/AQ. The content and format of the MER is defined in AFI 38-201, *Determining Manpower Requirements.* The MER satisfies the Congressional requirement to submit manpower requirements of major acquisition programs to the SECDEF. For further information pertaining to the required documentation and staffing process, refer to AFI 38-201.

4.3. Training System Planning. Throughout the design phase (Phase B and C), the prime mission system requirements are further developed and modified, resulting in Development Specifications (B-specs) and Production Specifications (C-Specs). As the prime mission system requirements are developed and/or modified, the requirements for the training system are also developed and modified. The TPT should convene throughout the design phase and ensure the TSRA, STP, specifications, and applicable training portions of the CDD/CPD are updated as needed to reflect changes in the training baseline. STP updates will be approved by HQ AFSPC/A5 after coordination with affected functional areas, no later than 90 days after PDR, and updated again no later than 90 days after CDR.

4.4. Technical Reviews. Formal technical reviews aim to satisfy senior management and the customer that the design will satisfy all required capabilities. They are a critical, cooperative examination, first of the design concept, later of its detail and finally of its suitability for production and use. Details pertaining to each design review are available in the Defense Acquisition Guidebook (**http://akss.dau.mil/dag/DoD5000.asp?view=document**) paragraph 4.3.3.4.

4.5. Programming Plans (PPlan). A Program Action Directive (PAD) is a HQ USAF initiative that helps accomplish a major action, assigns responsibilities, and identifies critical tasks as milestones. A PPlan is similar to a PAD, but is written below HQ USAF-level and is usually more specific and focuses more on tasks or KDPs. AFSPC/A8/9 is responsible to develop the PPlan. Not all systems developed and acquired for AFSPC require a PPlan. Further information pertaining to PPlans is located in AFI 10-501_AFSPCSUP, *Program Action Directives (PAD) and Programming Plans (PPlans)*.

   4.5.1. PPlan Objectives. PPlans are usually developed for significant projects or problems that require broad staff and subordinate unit participation or long term monitoring of actions. PPlan objectives include:

      4.5.1.1. Introducing, converting, modifying, or further developing major space systems.

      4.5.1.2. Activating, relocating, consolidating, realigning, and inactivating units.

4.5.2. PPlan Features. The system:

    4.5.2.1. Forces detailed preplanning.

    4.5.2.2. Assigns specific responsibilities for actions to be taken.

    4.5.2.3. Establishes time phasing to reach objectives.

    4.5.2.4. Coordinates interrelated, functional, and staff actions.

    4.5.2.5. Provides a common "road map" to all levels of command and concerned agencies.

    4.5.2.6. Provides a means for monitoring progress toward achieving an objective.

4.6. Implementation Plan (IPlan). The IPlan will be developed by the gaining installation/base/site using an established PPlan to identify events associated with the activation or upgrade of a specific program/system. The Integrated Activation Transition Team (IATT) will tailor the IPlan to:

    4.6.1. Identify local Major Events (ME) and Milestones.

    4.6.2. Establish timelines to reach local objectives.

    4.6.3. Assign specific responsibilities for actions to be taken.

    4.6.4. Coordinate interrelated, functional, and staff actions.

    4.6.5. Provide a means for monitoring progress toward achieving an objective.

4.7. Developmental and Transition Teams. AFSPC will form three separate teams with distinct functions to manage system activation and integration issues. **Figure 4.1.,** Development and Transition Teams, provides a graphic depiction of the teams. The teams are:

Figure 4.1. Developmental and Transition Teams.
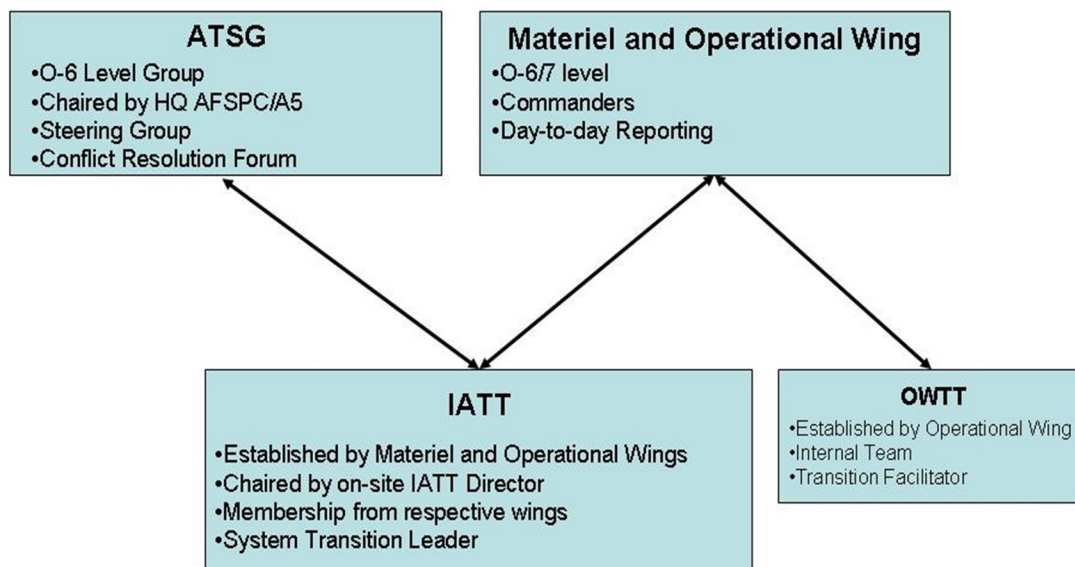
4.7.1. Activation/Transition Steering Group (ATSG). The purpose of an ATSG is to be an "honest broker" for the system in transition and to ensure the program is resourced, organized, trained, and equipped for successful transition from acquisition to operations. The appropriate HQ AFSPC/A5

division chief will be responsible for forming and chairing the ATSG. The group is intended to mini-mize delays or disruption by providing resolution to transition activities caused by unknown or unforeseen events. Committee members may bring issues of disagreement to this body for resolution.

4.7.1.1. Some high-interest or troubled developmental programs may require additional senior leader guidance. When necessary the ATSG chairperson will recommend that the AFSPC/A5 direct the responsible Materiel Wing to provide a program status review to inform HQ AFSPC decision-makers and receive their guidance. For serious or extended developmental issues, AFSPC/A5 may convene a General Officer Steering Group to identify and oversee resolution.

4.7.1.2. Membership. The ATSG team members, typically at the O-6 level, are categorized as charter members or stakeholders. Charter members are HQ AFSPC organizations with responsi-bilities for requirements, budgets, schedules, program issues and accreditation. Stakeholders are Materiel and Operational Wings, along with other appropriate organizations that influence the operational acceptance and declaration of IOC/FOC, as determined by the charter members. New members may be invited to the ATSG as needed.

4.7.2. Integrated Activation Transition Team (IATT). In general, the IATT supports the Materiel and Operational Wings in developing testing, training, and transitioning new systems to operations with Installation/Base/Site specific tasks. More specifically, the IATT is designed to support initial plan-ning, scheduling, development, installation, training and testing decisions for a new system/program or a significant upgrade/modification to an existing program and provides a means of up channeling concerns to HQ AFSPC/A5. The IATT is led by a Transition Director. The Transition Director, desig-nated by the Materiel and Operational Wings, will be physically located at the facility where the new system or upgrade is taking place and reports directly to the Material and Operational Wings on a day-to-day basis. IATT membership includes members who have expertise in the areas required for activating a new system or renovating an existing one. As such, specific IATT composition will vary from team to team. However, each team should have members from the appropriate wings, squadron liaisons and/or cadre, the developing agency, and testers. The Transition Director will participate in the ICT and provide results/status from the IATT for the updating of the STP, STMP, and IOC plans.

4.7.2.1. An IATT will be initiated during Phase C. This should occur after the CPD is approved and around the time of the build decision or Low Rate Initial Production (LRIP) decision. The Materiel Wing and the Operational Wing will stand up the IATT and notify HQ AFSPC/A5 via a formal letter. HQ AFSPC/A5 will coordinate the assignment of additional personnel (outside the Operational and Material Wings) to the IATT as necessary. The IATT is also the direct liaison to the ATSG and supports ATSG activity. The Transition Director for a specific IATT will also serve as an advisory member to the ATSG.

4.7.2.2. Upon recommendation by the Transition Director regarding completion of IATT specific tasks and mission, the Materiel and Operational Wings will deactivate the IATT and notify HQ AFSPC/A5 via formal letter.

4.7.3. Operational Wing Transition Team (OWTT)**.** Operational Wings may create internal teams uti-lizing their own resources to start addressing transition, scheduling, fielding, training, manning and other programmatic issues to facilitate efforts. These wing members may also serve as members of the IATT. Internal wing transition teams are deactivated as deemed appropriate by wing leadership.

4.8. Project Task Forces (PROTAF). The PROTAF is a project management group convened by the Command Lead to identify and coordinate actions required to accomplish specific project objectives, which may or may not be related to standing up a new capability or program. As such, the PROTAF differs greatly from the ICT, which is primarily responsible for identifying requirements and developing requirement documentation. PROTAFs expedite but do not replace the normal staff process.

4.8.1. If the Command Lead determines that a PROTAF is required, the Command Lead will request the AFSPC/A5 to approve the establishment. If approved, HQ AFSPC/A5 and HQ AFSPC/A8 will be co-chairs. PROTAF membership will be determined by the co-chairs along with the Materiel Wing, to ensure the appropriate agencies/organizations are represented.

4.8.1.1. Within each working group (e.g., logistics working group) and functional area, the representative oversees the identification of required actions and execution of those actions, resolves associated problems, and provides collateral functional area support for the project.

4.9. System Transition Management Plan (STMP). The STMP provides guidance for transition of development and sustainment products from Materiel Wing to the Operational Wing under the oversight of the Command Lead. The intent of a STMP is to minimize operational impacts to ongoing operations during a new system fielding. AFSPC/A5 is responsible for developing the STMP utilizing the ICT. The STMP will present the transition in terms of MEs, including entry and completion criteria, and identify roles, responsibilities, critical points, and event dependencies. AFSPC/A3 is responsible for approving the STMP.

4.10. Transition Support Plan (TSP). The TSP is used to establish planning and implementation requirements for the transition of a space system contracting, engineering, supply support, and all other logistics management responsibilities associated with the production contracts from the Materiel Wing to the Sustainment Agency. The Materiel Wing will prepare and coordinate the TSP.

Chapter 5

BUILD AND OPERATIONS

5.1. Build and Operations. Phase D begins with the MDA Build Approval. The purpose of the Build Approval is to authorize the conduct of all acquisition-related activities associated with fabrication, testing, deploying (e.g., launch) and supporting operations of new space systems.

5.2. Training System Planning. After build approval, the build and operations phase begins. The STP should contain sufficient detail to prescribe how, when, and where applicable training systems will be delivered, when SME training will be conducted, the number of Type-1 course offerings, the number of students per course, the target audience, etc. The TPT will identify and review training documentation and track training funding through the Command Leads, Developing Agencies, and PEMs. The TPT will ensure technical data, Type-1 training, and training simulators are delivered with sufficient time for the unit training office to develop, deliver, and evaluate compliance of qualification and proficiency training programs prior to operational acceptance. For planning purposes, this delivery shall be prior to the RAA date for the prime mission system (e.g., 12 to 6 months prior to operational acceptance). Delays to delivery of the training system will result in delays in operational acceptance.

5.2.1. Type-1 training is special contractor-provided training, for the instructors, operators, maintainers, and mission support personnel that are required for new or modified mission systems. AETC is the Air Force single manager for all specialty training, which includes all Type-1 (contractor-provided) training. AETC determines whether government agency or contractor-conducted training best serves the needs of the Air Force.

5.2.2. The TPT will ensure that Type-1 training is based upon validated technical orders, and that initial and unit qualification training is based upon verified technical orders and accepted commercial manuals. The TPT chair is responsible for ensuring appropriate Type-1 training is provided such that units can effectively maintain mission readiness. Type 1 training audience includes but is not limited to operators, maintainers, system administrators, orbital analysts, spacecraft engineers, and other mission support personnel. The Type-1 training will be tailored to effectively train their respective audience using ISD principles.

5.2.3. When a new unit or duty position is established, new equipment or system modifications occur, or new or significantly changed operations procedures requiring training or evaluation occur, the most experienced or qualified personnel in the unit may be designated as the SMEs by unit commanders. The number of SMEs will be limited to those individuals necessary to develop/conduct the appropriate unit training and evaluation programs or individuals necessary to support the operations, test, and evaluation process. SMEs must accomplish the appropriate training for the duty position, such as contractor-provided Type I training.

5.2.4. Applicable units will conduct Simulator Certification (SIMCERT) of training simulators prior to operational acceptance of the prime mission system and as early as possible after simulator delivery to evaluate potential shortfalls or deficiencies in performance. Units will conduct SIMCERTs with HQ AFSPC/A3 acting as SIMCERT director.

5.2.4.1. Annual SIMCERTs will be conducted by the operational unit with HQ AFSPC/A3 acting as SIMCERT director, to evaluate continued effectiveness and currency of all operations training simulators/training devices.

5.2.5. Prior to OA, squadron commanders will ensure their unit training, standardization, and evalua-
tion programs are evaluated for compliance with applicable AFIs and AFSPCIs and their supple-
ments. At this point, a sufficient number of mission-ready crewmembers to operate the system need to
be certified by the squadron commander, upon recommendation of the Operations Group Standardiza-
tion and Evaluation Section (OGV). The result of this, OMRT will be used in determining readiness
for operational acceptance.

5.2.6. After turnover, TPT chair responsibilities transfer to the AFSPC/A3 branch chief responsible
for the primary mission system. The TPT will continue to convene at least annually, making updates
to the STP to ensure training system effectiveness and identify requirements for modification or new
acquisition.

5.2.7. Deficiency Reports (DR) and approved modification proposals affecting operational space
training devices and simulators will be sent through the appropriate unit, group, wing, and Numbered
Air Force training, standardization, and evaluation offices to HQ AFSPC/A3, to be evaluated by the
applicable TPT.

5.3. Test and Evaluation (T&E). The overarching functions of T&E are to mature system designs,
manage risks, identify and help resolve deficiencies as early as possible, and ensure systems are opera-
tionally safe, suitable, and effective (OSS&E). The Air Force T&E community plans for and conducts
integrated T&E in collaboration with the requirements and acquisition communities. Additional informa-
tion is available in AFI 99-103 and AFMAN 99-113, *Space Systems Test and Evaluation Process Direc-
tion and Methodology for Space System Testing*, and AFSPCI 99-101.

5.3.1. Test Readiness Review (TRR). The TRR is a meeting to determine the readiness to enter a par-
ticular level of testing. For testing directed by AFSPC test orders, the following organizations are nor-
mally represented: HQ AFSPC/A3, and appropriate HQ AFSPC/A3 functional divisions, system
developer, Responsible Testing Agency, Command Lead, operational unit and supporting units.

5.3.2. Developmental Test and Evaluation (DT&E). DT&E are tests and evaluations conducted to
evaluate design approaches, validate analytical models, quantify contract technical performance and
manufacturing quality measure progress in system engineering design and development, minimize
design risks, predict integrated system operational performance (effectiveness and suitability) in the
intended environment, and identify system problems (or deficiencies) to allow for early and timely
resolution or correction. DT&E includes contractor testing and should begin no later than Phase C.
AFSPC/A5 acts as the focal point for DT&E policy and guidance IAW AFI 99-103 and AFSPCI
99-101.

5.3.3. Operational Test and Evaluation (OT&E). OT&E are tests conducted prior to acceptance and
fielding to evaluate the military utility, operational effectiveness, validity of TTPs, and suitability of
the system with respect to its required capabilities and Operating Concept. HQ AFSPC/A3 acts as the
focal point for OT&E policy and guidance IAW AFI 99-103 and AFSPCI 99-101.

5.3.4. Integrated Testing. Whenever feasible, DT&E and OT&E events should be combined and doc-
umented in the TEMP, if that supports technical and operational test objectives to gain the optimum
amount of testing benefit for reasonable cost and time. The user community should be involved early
in test planning to ensure the statement of required capabilities is interpreted correctly and tested real-
istically. Certain events can be organized to provide information useful to both developmental and
operational evaluators and lend themselves to the combined developmental testing (DT) and opera-

tional testing (OT) approach. The concept is to conduct a single, combined test program that produces credible qualitative and quantitative information that can be used to address developmental and operational issues. Examples of this approach include combined DT and OT events, or piggybacking an operational assessment onto a developmental test. Likewise, developmental testing data requirements may be accommodated by an operational test. This approach can reduce the time and expense of conducting dedicated OT events that replicate DT events, or vice versa, yet still provide adequate technical risk reduction. The developmental and operational testers can develop a test management structure to share control of the combined events and documented in the TEMP. Combined DT and OT events and test data requirements must be identified early to prevent unnecessary duplication of effort and to control costs. It is important that neither the DT&E nor the OT&E objectives be compromised in designing combined events.

5.3.5. Deficiency Report (DR) and Resolution Process: USAF Deficiency Reporting and Resolution processes apply to all USAF and contractor members and organizations that operate or sustain USAF owned or managed military or weapon systems (Space, and Command and Control and Information Systems), their sub and support systems. The Deficiency Reporting and Resolution processes shall be established prior to government test and evaluation, and will continue throughout the system life cycle, IAW TO 00-35D-54.

　　5.3.5.1. Deficiencies identified during test and evaluation phases shall be classified as T&E DRs and reported to the program management activity responsible to determine cause and take corrective action to prevent recurrence. T&E DRs include, but are not limited to those conditions that are the result of incompatibility or failures as measured against applicable specifications, procedures, operational requirements, or test equipment, and recommendations for enhancements to improve operational safety, suitability and effectiveness (OSS&E). **Table 5.1.,** DR Category and Priority Determination*,* provides the DR categories, priorities, and impacts.

5.3.6. The Deficiency Review Board (DRB). The T&E DRB will be convened by the DT&E/OT&E Originating Point, chaired by DT&E/OT&E test directors or their representatives, and staffed by T&E personnel. To ensure a maximum interchange concerning DR actions and issues, the PM and operating command may be members of the T&E DRB. Attendees may also include members from supporting/participating commands and system contractor personnel. Attendees should be at a level equal to the DT&E/OT&E test directors and should be able to speak and commit for their organization. The DRB may be called Watch Item Review Board (WITRB) at discretion of local requirements.

　　5.3.6.1. The T&E DRB will determine the priority of DRs according to **Table 5.1.**. Prioritization is required for all Air Force acquisition programs beginning no later than the start of DT&E and continuing as long as T&E is being conducted.

　　5.3.6.2. The T&E DRB will rank order according to priority all open DRs unless the DR is verified by the Action Point as quality related (reference AFI 63-501, *Air Force Acquisition Quality Assurance Plan*).

Table 5.1. DR Category and Priority Determination.

| CAT I	
Priority	**Impact**
1A	If uncorrected, may cause death, severe injury, or severe occupational illness and no workaround is known; or,
1B	If uncorrected, may cause major loss or damage to equipment or a system and no workaround is know; or,
1C	Prevents the accomplishment of an essential capability or critically restricts OSS&E, to include required interaction with other mission critical platforms or systems; and no acceptable workaround is known
1D	Adversely affects an essential capability or negatively impacts operational safety, suitability, or effectiveness and no acceptable workarounds are known.
1E	Adversely affects technical, cost or schedule risks to the project or to life cycle support of the system, or, results in a production line stoppage and no acceptable workaround is known.
When the condition does not meet the safety or mission impact criteria of a Category I report, submit a Category II DR with the corresponding priority when the condition:	
CAT II	
Priority	**Impact**
2A	Adversely affects an essential capability or negatively impacts operational safety, suitability, or effectiveness and adequate performance is achieved through significant compensation or acceptable workaround
2B	Adversely affects technical, cost, or schedule risks to the project or to life cycle support of the system, but an acceptable workaround is known
2C	Does not affect an essential capability but may result in user/operator inconvenience or annoyance. Adequate performance is achieved through minimal compensation.
2D	Results in inconvenience or annoyance for development or maintenance personnel, but does not prevent the accomplishment of the task. Adequate performance is achieved through minimal compensation
2E	Any other effect, i.e., enhancements having little or no impact to OSS&E under current requirements.
NOTES: 1. Give careful consideration to assigning the category and corresponding priority recommendations to accurately define the deficiencies impact. 2. Priority 1A - 1C are considered Emergency Conditions; Priority 1D - 2B are considered Urgent Conditions; and Priority 2C - 2E are considered Routine conditions.	

5.4. Early System Use. Early use of an asset (prior to formal operational testing/operational acceptance)

may be considered if deemed advantageous and necessary to increase military utility with the understanding the asset is still in the developmental phase. AFSPC/A3, in coordination with the COCOM and operations community, will determine the need and/or feasibility of Early Use for each system.

5.4.1. Early Use Operations will be conducted in parallel with development and testing activities. Operational and development priorities will be deconflicted on a case-by-case basis between the Materiel Wing and HQ AFSPC/A3. HQ AFSPC/A3 will inform JFCC SPACE on any issues encountered during early use. Information may be distributed via informal reporting channels such as Information Work Space (IWS).

5.5. Operational and Maintenance Responsibility Transfer (OMRT). The purpose of OMRT is to <u>conditionally</u> transfer operations and/or organizational-level maintenance (if applicable as specified by the OMRT letter) responsibility of newly installed or modified capability to the Operational Wing for the purpose of <u>OT&E</u>. An OMRT letter is prepared by the Materiel Wing and submitted to the operating agency for signature, which accepts the transfer. The Certificate of System Readiness to Enter OT&E letter must be submitted before OMRT letter is signed. Although OMRT signifies a transition point between DT and OT, it does not release the Materiel Wing from its responsibility to continue funding an effort. Similarly, OMRT does not obviate the Operational Wing to correct latent defects or act on any remaining deliverables. The Operational Wing takes responsibility to fund organizational-level maintenance and can use the system at their own risk in what is considered a Trial Period to support an OA and fielding decision.

5.6. Trial Period Review Panel (TPRP). The TPRP, chaired by HQ AFSPC/A3, will be used as a means of ensuring a system readiness to enter into and/or exit from Trial Period. TPRP membership consists of, but not limited to HQ/AFSPC/A5, Materiel Wing, Operational Wing, and AFOTEC. The TPRP's decision to enter into and/or exit from the Trail Period will be documented and maintained by the Command Lead.

5.7. Trial Period. Trial Periods can occur prior to, during, and/or following testing and evaluation, during which an operating organization becomes familiar with a system using operational techniques and procedures. Trial Periods are utilized to determine the ability of the operational unit to employ the system. Additionally they demonstrate to the operational commander that the unit can perform its designed operational mission or missions. The Trial Period is nominally 30 days but must be flexible due to unforeseen circumstances. Trial Periods normally occur between the RAA date and OA or IOC declaration.

5.8. Operational Acceptance (OA). OA is defined as the formal process by which the AFSPC/A3 (could be delegated) accepts responsibilities for new or newly modified capabilities. In accordance with the HQ AFSPC/A3 memo of 22 Mar 07, "Operational Acceptance Policy for AFSPC Operational Assets", the AFSPC/A3 division assigned to a given program will develop a recommendation for OA criteria and authority no later than 30 days prior to preliminary design review (PDR). In essence, with OA the AFSPC/A3 declares the system is capable of supporting the mission as the new system of record. OA is at the completion of the operational testing with all Category 1 and critical Category 2 deficiencies (as defined in TO 00-35D-54) dispositioned, and all unresolved liens on the system agreed to by HQ AFSPC, the operating organization, and the developing agency. At this point, the users should be able to use the system with little or no risk. The appropriate division within HQ AFSPC/A3 will prepare the OA letter for the AFSPC/A3 signature after the OT&E final out brief and completion of Trial Period.

5.8.1. AFSPC Operations Approval Panel (OAP). AFSPC/A3 has delegated to AFSPC OAP the authority for Configuration Control and Operations Acceptance of AFSPC Integrated Tactical Warning and Attack Assessment (ITW/AA) mission systems and those that contribute to the ITW/AA. The AFSPC OAP will grant Operations Acceptance at the conclusion of a successful Trial Period and with positive recommendation by the Units, Wings, NAFs and System Experts within AFSPC. In certain cases, the higher-level Operations Approval Board (OAB) will Operationally Accept a system if interfacing with or affecting multiple ITW/AA components.

5.9. Turnover. Turnover is a milestone representing transfer and formal acceptance of organizational budgetary, logistical support, follow-on training, and O&M responsibilities from the Materiel Wing to the Operational Wing. Planning for turnover should begin early in the program development life cycle. Early in the project, the Command Lead will conduct a review with the ICT to determine if a formal turnover is needed. If a decision to conduct a formal turnover is approved the turnover process as defined below will be followed. The turnover process involves execution of detailed planning activities that accomplish necessary events and actions for successful turnover of AFSPC operational capabilities. **Figure 5.2.,** Turnover Process, illustrates the overall turnover process flow.

Figure 5.1. Turnover Process.
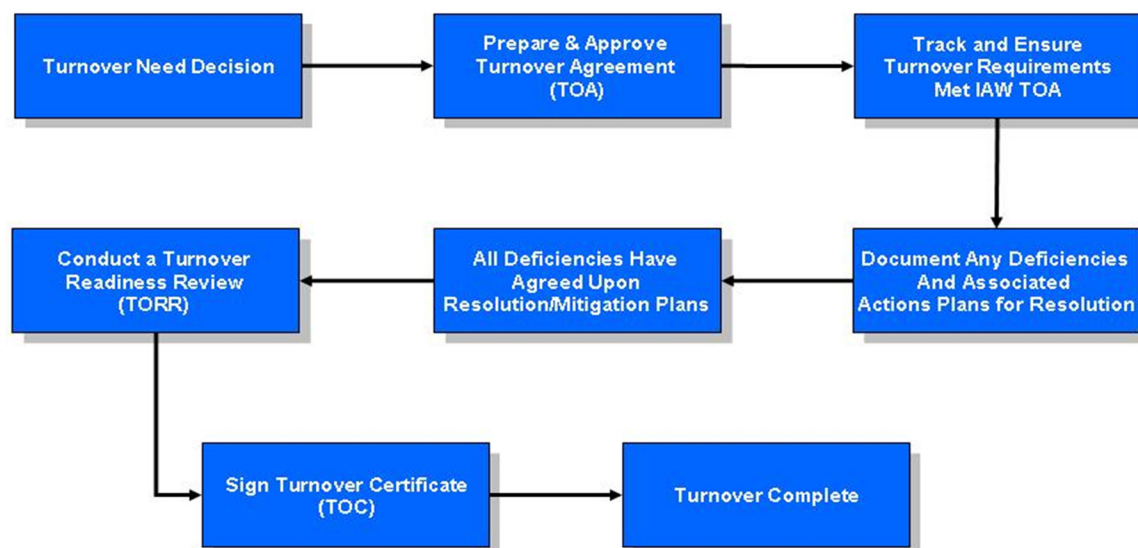
5.9.1. Turnover Documentation. Key turnover events and documents are required prior to transferring O&M of any new AFSPC weapon system(s) from the acquisition side to the operations and maintenance side. The Turnover Agreement (TOA) checklist identifies all the events and documentation needed for turnover. (See **Attachment 3**)

5.9.2. Turnover Agreement (TOA). The TOA provides the set of requirements that must be satisfied for successful turnover. It defines key turnover documentation and critical turnover events/activities. Each TOA shall include sections describing the product to be turned-over, to include a general description of capabilities, an illustration of system configuration, a list of functions to be supported at what maintenance level and by which responsible agency, an inventory of all equipment (e.g., hardware, software, warranties, licenses) including sources of replenishment, dependencies on other deliveries and/or products that affect the turnover, and a checklist of actions to be implemented and completed.

5.9.2.1. The Materiel Wing will prepare and coordinate the TOA for HQ AFSPC/A5's approval. Upon TOA approval, the Materiel Wing will track and report on the completion status of turnover requirements, as specified in the TOA. A sample TOA is located in **Attachment 3**. This agreement serves as a basis of mutual understanding for turnover of a product and the system deliverables. This agreement also forms the basis for signing the TOC, which when jointly signed, formally completes turnover.

5.10. Turnover Certificate (TOC). When the product/system is ready for turnover, the Materiel Wing will conduct a Turnover Readiness Review (TORR), create and present the TOC for signatures to record the turnover activities' successful completion. The TOC is the final and official declaration that all requirements in the TOA have been completed with deficiencies identified and mitigated, the product/system has been accepted for operations, and HQ AFSPC/A3, or the designated representative, accepts physical accountability and full O&M responsibility. If there are deficiencies, the Materiel Wing will publish all deficiency reports and include impacts to operation, corrective actions required, and schedules for implementation of corrective actions for turnover critical deficiencies. Non-turnover critical deficiencies also scheduled for corrective action will be documented in deficiency reports and transferred to sustaining agency. These reports will be provided by the Materiel Wing agency with the TOC. A final assessment of turnover readiness status and a recommendation for turnover is made at the TORR. The recommendation will be made as either 1) Accept, 2) Accept with Deficiencies, or 3) Do Not Accept. If the turnover is not accepted, senior members from HQ AFSPC, the Materiel Wing, and the Operational Wing will determine an equitable way ahead. The Materiel Wing, HQ AFSPC, and the Operational Wing jointly sign the TOC. As applicable, and prior to turnover, AF Form 1261(s), with attached DD Form 250, *Material Inspection and Receiving Report*, will be used for inspecting and accepting Command, Control, Communications and Computers (C4) systems, modifications, and upgrades. Refer to AFI 33-104 for more information.

5.11. Satellite Control Authority (SCA). SCA is the authority to command and control the spacecraft and transfers at key points during the life cycle of the vehicle. The Materiel Wing has initial SCA, which it transfers to the operational community at a pre-determined time in the system life cycle. SCA is transferred from the Materiel Wing to USSTRATCOM, who delegates SCA to JFCC SPACE for those systems that JFCC SPACE has Operational Control (OPCON). JFCC SPACE, in turn, transfers SCA to the appropriate Space Wing. For day-to-day operations, SCA is further delegated down to the squadron level. The initial SCA transfer can occur as early as vehicle separation from booster (e.g., Global Positioning System) or as late as the vehicle being placed into operational orbit (e.g., Wideband Global SATCOM).

5.12. Initial Operational Capability (IOC) and Full Operational (FOC). The purpose of declaring IOC and FOC is to announce an initial or full operational capability of a new or upgraded system to unified commanders, higher headquarters and AFSPC organizations, as applicable. (For upgraded systems, IOC/FOC would only be needed if the system provides a significant new capability.) The IOC/FOC declaration process is discussed in **Attachment 4**.

5.13. Mission Activation Message. Following the AFSPC/A3 IOC declaration to USSTRATCOM, the appropriate subordinate commander (JFCC SPACE, JTF-GNO, or both) will assess and declare, via official message, to CDRUSSTRATCOM that the mission is operational, including any limitations.

5.14. Combant Command (COCOM) Acceptance. Upon the recommendation of AFSPC/A3, CDRUSSTRATCOM accepts COCOM, delegates OPCON to the appropriate component commander

and adds the weapon system to its Forces for Unified Command document. The OPCON Commander may delegate Tactical Control (TACON) to a subordinate commander or agency. There may be times when a national emergency or war will accelerate launch operations, mission activation, or activation of selected mission payloads. During these times, normal COCOM acceptance procedures may likewise be altered.

5.15. System Integration, Configuration Management, Change Control and Modifications. Systems that are associated with ITW/AA will follow NI 10-3, *Mission Integrity, Change Control Management, and Test Control for the Integrated Tactical Warning and Attack Assessment (ITW/AA) System* and SI 508-10. These systems may report to a Wing Operations Approval Support Board (OASB) and in turn will report to HQ AFSPC/Operations Approval Panel (OAP) and the ITW/AA OAB for Configuration Control and Operational Integrity. In addition to the above instructions, AFSPC systems seeking modifications should reference AFSPCI 63-104, *Modification to Systems and Implementation Approval Process.*

Chapter 6

RAPID SYSTEM ACQUISITION

6.1. Rapid System Acquisition. Due to the necessity of rapidly deploying systems to correct deficiencies found in the field, or to provide materials which will prevent combat deaths or mission failure, the Air Force has developed several processes, which speed up the development and/or fielding of promising technology. Among these are the Rapid Response Process (RRP) and the Warfighter Rapid Acquisition Process (WRAP). Additionally, there is a joint rapid acquisition process, called Joint Urgent Operational Needs (JUONS).

6.2. Rapid Response Process (RRP). AFI 63-114, *Rapid Response Process* provides the warfighter with a means of obtaining a limited number of needed systems/capabilities in a combat theater during an ongoing conflict or crisis to address a critical capability gap/shortfall that could result in **"loss of life"** and/or prevent mission accomplishment. Essentially, the RRP accelerates the fielding of critical systems to meet theater-specific wartime needs. It begins when the Air Force Chief of Staff (CSAF), receives an urgent, time sensitive Combat Capability Document (CCD) submitted by HQ USAF, a MAJCOM, or Unified Combatant Command (UCC). For example, Operational Responsive Space (ORS) may be required to fill an operational gap identified in a UCC Area of Operations (AOR) by rapidly acquiring, launching a Tactical Satellite (TACSAT), small satellite, etc., and fielding an associated command and control (C2) ground segment.

6.2.1. The RRP does not replace normal acquisition procedures, but rather speeds up the process of fielding systems/capabilities to satisfy warfighter urgent operational needs (UONs). (See **Figure 6.1.,** Rapid Response Process.) There is no separate funding for UONs. The lead MAJCOM is responsible for sourcing funds and its funding strategy should include sustainment of the proposed capability until it is terminated or transitions to a normally funded program. (See also AFI 10-601, Attachment 3).

6.2.2. Combat Capability Document (CCD). A CCD is an operational requirements document the AF uses to support fielding an interim solution to a warfighter's urgent operational need per AFI 10-601. It temporarily fills the role of the required JCIDS documents (ICD, CDD, and CPD) used in the non-accelerated acquisition process. As such, the CCD is a short-term solution to "buy time" to allow processing for the long-term JCIDS documents, mentioned above. The CCD does not create a place-holder for future funding nor is it a means to bypass the normal requirements/acquisition process.

6.2.3. HQ AFSPC/A5 will assume Command Lead responsibilities for rapid acquisition capabilities needed to meet new or fulfill existing requirements. HQ AFSPC/A3 will assume Command Lead responsibilities for rapid employment capabilities needed to maintain or enhance existing requirements.

6.3. Warfighter Rapid Acquisition Process (WRAP). WRAP is an Air Force Process used to accelerate the development and fielding of operational initiatives resulting from innovation. Likely technology sources could come from completed warfighter experiments, Advanced Technology Demonstrations (ATDs), Advanced Concept Technology Demonstrations (ACTDs), and industry. WRAP provides R&D funding for up to two years, which allows for development/sustainment while the AF is soliciting for funds through the POM process. Regardless, WRAP and the RRP do utilize a similar streamlined process and some of the same decision-making bodies, but they are two distinct processes. For further information pertaining to WRAP, refer to the HQ USAF *Warfighter Rapid Acquisition Process Guidebook.*

Figure 6.1. Rapid Response Process.
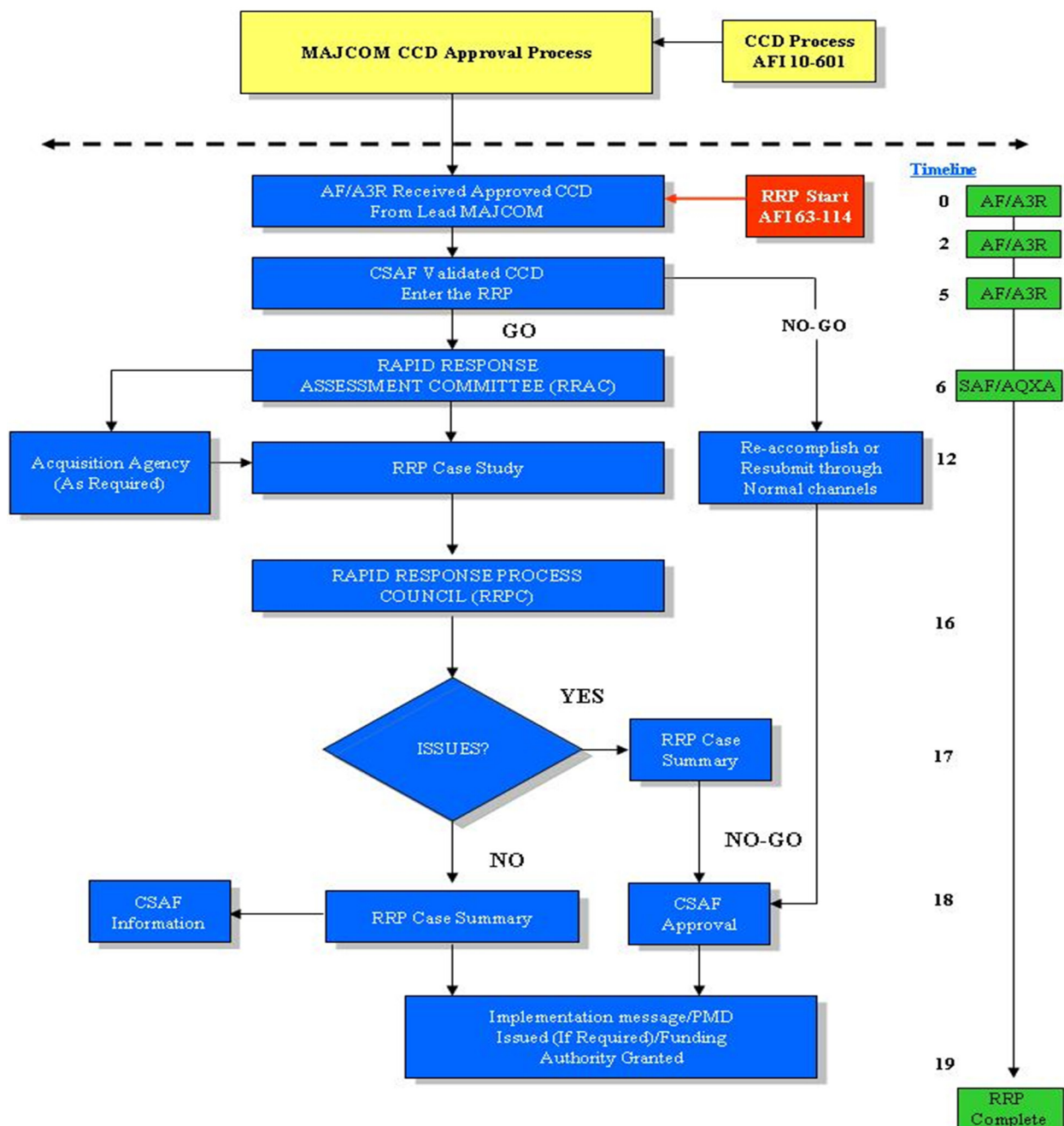
6.4. Joint Urgent Operational Needs (JUONS). JUONS process is a time sensitive means to support a combatant commander involved in a combat-related (ongoing) operation. It provides a method of rapidly validating, resourcing and fielding, as necessary urgent operational solutions, which are outside the Services normal processes. JUONS assets should prevent combat loss of life or a combat mission failure.

6.4.1. JUONS assets should not involve technology development; however, the acceleration of an ACTD or minor modification to an existing COTS/GOTS system, which allows it to be used for a new mission, is permissible. This process is fully documented in CJCSI 3470.01, *Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONS) in the Year of Execution.*

6.5. Single Satellite Operations (SSO). The Multi-Mission Space Operations Center (MMSOC) is a unique, one-of-a-kind capability within AFSPC that allows for the development and transition of experimental satellites to the operations arena. The concept behind the MMSOC is to explore potential new missions that can be rapidly transitioned from R&D to operations. The 50th Space Wing will accomplish this objective by working closely with the Space and Missiles Systems Center's (SMC) Space Development and Test Wing (SDTW).

6.5.1. The SDTW possesses considerable Research Development Test and Evaluation (RDT&E) expertise and a vast knowledge base. The MMSOC will leverage this extensive experience to, among other things; expand upon the capabilities and proven technologies that have been demonstrated by Research and Development Space and Missiles Operations (RDSMO). These programs often utilize satellites that are unique, or one of a kind.

6.5.2. The current accreditation processes do not allow for short term or quick turnaround programs envisioned to be operated out of the MMSOC. Nor do they allow for accreditation of a distributed Net-Centric Architecture. Net-centric implementation is essential for cost-effective mission development and sustainment, in addition to overall architecture sustainment. Without it, skyrocketing costs and a snail-pace transition could potentially destroy whatever military advantage is gained by making the program operational. Likewise, MMSOC related acquisition processes would need to be tailored to support the rapid transition of new space capabilities.

6.5.3. In battle, the Joint Force Commander (JFC) achieves the desired outcome (i.e., the commander's intent) by creating effects across the full range of military operations, including the dimension of space. The MMSOC Program will support delivery of operational effects in several ways. First and foremost, the overarching architecture will support the transition to operations of satellite vehicles (SVs) with operational utility. In addition, as Joint Warfighting Space (JWS) and Operationally Responsive Space (ORS) become more mainstream, the operational component of MMSOC is specifically designed and prepared to support launch-on-demand operations, Tracking, Telemetry and Command (TT&C) and payload operations as appropriate. (Additional details on the MMSOC will be available in the MMSOC Enabling Concept, projected for publishing in mid FY 2007.)

6.6. Adopted Forms.

6.6.1. AF Form 1261, *Communications and Information Systems Acceptance Certificate.*

6.6.2. DD Form 250, *Material Inspection and Receiving Report*.

C. DONALD ALSTON, Brigadier General, USAF
Director of Air, Space and Information Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

CJCSI 3010.2B, *Joint Operations Concept Development Process*, 27 January 2006. This instruction provides guidance for joint concept development and synchronizes the efforts of the joint concept community in the DOD capabilities-based approach to transformation.

CJCSI 3170.01F, *Joint Capabilities Integration and Development System*, 1 May 2007. This instruction is to establish the policies and procedures of the Joint Capabilities Integration and Development System (JCIDS).

CJCSI 3470.01, *Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONS) In The Year Of Execution*, 15 July 2005. This instruction establishes policy and procedures to facilitate assessment, validation, sourcing, resourcing (in accordance with DoD 7000.14-R, *DoD Financial Management Regulations (FMRs)* and fielding of operationally driven urgent, execution-year combatant commander needs.

CJCSM 3170.01C, *Operation of the Joint Capabilities Integration and Development System,* 1 May 2007. The purpose of this instruction is to establish the policies and procedures of the Joint Capabilities Integration and Development System (JCIDS).

NSS Acquisition Policy 03-01, *Guidance for DoD Space System Acquisition Process,* 27 December 2004. This Policy provides overarching guidance for the acquisition of all space systems within the DoD.

DoDD 5000.1, *The Defense Acquisition System*, 12 May 2003. Along with DoDI 5000.2, provides management principles and mandatory policies and procedures for managing all acquisition programs

DoDI 5000.2, *Operation of the Defense Acquisition System*, 12 May 2003. Implements DoDD 5000.1 and establishes a simplified and flexible management framework for translating mission needs and technology opportunities, based on approved mission needs and requirements, into stable, affordable, and well-managed acquisition programs that include weapon systems and automated information systems.

SI 508-10, *Mission Integration, Change Control Management, and Test Control for the Integrated Tactical Warning and Attack Assessment (ITW/AA) System*, 12 July 2006. This instruction establishes the policy for operational mission integrity of the ITW/AA System.

SD 714-02, *Satellite Communication (SATCOM) System Expert (SSE) Responsibilities,* 20 September 2005. This directive designates Consolidated SSEs (C-SSE) and system SSEs. It defines their responsibilities to support the CDRUSSTRATCOM, responsibilities as the SATCOM Operational Manager (SOM). (Pertains to SATCOM systems only)

TO 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution,* 1 May 2007. This TO implements AFPD 63-5, *Quality Assurance* and AFI 63-501, *Air Force Acquisition Quality Program* requirements for deficiency reporting. The processes of this TO also ensure compliance with federal acquisition requirements in accordance with Title 41, Code of Federal Regulations, Subpart 101-26-8, *Discrepancies or Deficiencies in GSA or DOD Shipments, Material, or Billings* and supports AFI 21-115, *Product Quality Deficiency Report Program*.

NI 10-3, *Mission Integration, Change Control Management, and Test Control for the Integrated Tactical Warning and Attack Assessment (ITW/AA) System*, 3 April 2006. This instruction establishes the policy for operational mission integrity, the change control process, and all test and exercise activity of the ITW/AA System.

AFPD 10-6, *Capabilities Based Planning & Requirements Development,* 31 May 2006. This directive establishes the framework for Air Force capabilities-based planning and requirements development to ensure Air Force capabilities meet the needs of the Joint Warfighter now and in the future.

AFPD 10-28, *Air Force Concept Development*, 15 September 2003. The purpose of this AFPD is to provide a common framework and practical guidelines for developing and writing Air Force concepts.

AFPD 10-12, *Space*, 1 February 1996. This directive establishes policies for planning, acquiring, operating, and sustaining Air Force space forces.

AFPD 61-1, *Management of Science and Technology,* 13 June 2003. This directive establishes policies for managing and executing the Air Force Science and Technology (AF S&T) program.

AFPD 63-1, *Capability-Based Acquisition System,* 10 July 2003. This directive implements guidance from the Secretary and Chief of Staff of the Air Force to fundamentally shorten the time it takes to field capabilities to the warfighter, and Department of Defense Directives, Instructions, and Regulations of the Defense Acquisition System.

AFPD 63-17, *Technology and Acquisition Systems Security Program Protection,* 26 November 2001. This policy directive implements DoD Directive 5000.1, *The Defense Acquisition System*; DoD 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs*; and DoDD 5200.39, *Security, Intelligence, and Counterintelligence Support to Acquisition Program Protection*.

AFPD 90-11, *Planning System*, 27 October 2000. This directive establishes the Planning System framework to ensure that Air Force capabilities meet the needs of the nation now and well into the future.

AFH 36-2235, Vol 11*, Information for Designers of Instructional Systems Application to Unit Training,* 1 November 2002*.*

AFI 10-201, *Status of Resources and Training System,* 13 April 2006. This instruction implements AFPD 10-2, *Air Force Readiness*. This document provides Air Force procedures for those areas listed in the CJCSM 3150.01, *Joint Reporting Structure General Instructions,* and CJCSI 3401.02, *Global Status of Resources and Training System,* as requiring Service direction.

AFI 10-503, *Base Unit Beddown Program*, 29 May 2003. This instruction implements AFPD 10-5, *Basing*, and applies to Air Force units (including the ANG and the AFR) and other Services/Agencies requesting (permanent) beddown actions. It provides site survey and unit beddown procedures for beddown requests on Air Force real property and applies to Air Force units requesting beddown action on non-Air Force real property. Portions of this AFI are not applicable when the beddown action involves programmatic changes to forces, manpower or funding normally handled by the Planning, Programming & Budgeting System (PPBS), Program Change Requests (PCRs) and/or beddown actions in support of contingency operations.

AFI 10-601, *Capabilities-Based Requirements Development*, 31 July 2006. This instruction establishes the guidelines, policies and procedures for defining, developing, documenting, validating, approving, and

managing Air Force capabilities-based requirements in support of the *Defense Acquisition Management Framework.*

AFI 10-602, *Determining Mission Capability and Supportability Requirements,* 18 March 2005. This instruction provides procedures and parameters to define and maximize logistics mission capability and supportability throughout the system life cycle, especially emphasizing the acquisition of new systems and modification of fielded systems.

AFI 10-604, *Capabilities-Based Planning*, 10 May 2006. This instruction implements AFPD 10-6, *Capabilities-Based Planning & Requirements Development.* It provides procedures for conducting Air Force Capabilities-Based Planning (CBP) and the Capabilities Review and Risk Assessment (CRRA) to support development of operational capability requirements and to provide decision-quality information for the capability requirement identification, development, investment, acquisition, and distribution processes.

AFI 10-2801, *Air Force Concept of Operations Development*, 24 October 2005. This instruction establishes guidelines for developing Air Force Concepts of Operations and implements AFPD 10-28, *Air Force Concept Development.*

AFI 14-111, *Intelligence in Force Modernization*, 10 January 2005. This instruction implements AFPD 14-1, *Intelligence, Surveillance, and Reconnaissance (ISR) Planning, Resources, and Operations,* by providing guidance in identifying, tasking, and acquiring intelligence essential to force modernization processes of the US Air Force.

AFI 32-1021, *Planning And Programming Military Construction (MILCON) Projects,* 24 January 2003. This instruction provides instructions to major commands and installations on how to plan, develop, and obtain approval for MILCON projects.

AFI 33-104, *Base-Level Planning and Implementation,* 10 May 2001. This instruction provides guidance to activities requiring, implementing, and supporting communications and information systems and defines management responsibilities when program acquisition will cost less than $15 million. See AFPD 10-6, *Mission Needs and Operational Requirements,* and AFI 10-601, *Mission Needs and Operational Requirements Guidance and Procedures*, for programs with acquisition costs of $15 million or more.

AFI 33-401, *Implementing Air Force Architectures,* 14 March 2007. This instruction implements AFPD 33-4, *Enterprise Architecting*. It describes the Air Force Enterprise Architecture (AF EA) and assigns responsibility for its federated architectures to specific organizations.

AFI 36-2251, *Management of Air Force Training Systems*, 20 March 2003. This instruction provides direction for managing Training Systems.

AFI 38-201, *Determining Manpower Requirements,* 30 December 2003. This instruction implements AFPD 38-2, Manpower. It prescribes guidance for determining manpower requirements, allocating military grades, managing rated officer positions, documenting contract manpower equivalents, managing civilian positions, and establishing statutory tour requirements.

AFI 63-101, *Operations of Capabilities Based Acquisition System*, 29 July 2005. This instruction implements AFPD 63-1, *Capabilities-Based Acquisition System*; the policies in DoDD 5000.1, *The Defense Acquisition System;* and DoDI 5000.2, *Operation of the Defense Acquisition System*; 10 USC 2330, **Procurement of Services**: and *USAF Management and Oversight of Service Process (MOASP)*; CJCSI) 3170.01, *Joint Capabilities Integration and Development System*; and CJCSM 3170.01, *Operation of the Joint Capabilities Integration and Development System*. This AFI must be used in conjunc-

tion with AFI 10-601, *Capabilities Based Requirements Development*; and AFI 99-103, *Capabilities Based Test and Evaluation*. Additional recommended guidance can be found within the <u>Defense Acquisition Guidebook</u>.

AFI 63-107, *Integrated Product Support Planning and Assessment,* 10 November 2004. This instruction implements AFPD 20-5, *Air Force Product Support Planning and Management* and AFPD 63-1, *Capability-Based Acquisition System*. It vests responsibility for both acquisition and sustainment product support planning in the Program Manager.

AFI 63-114, *Rapid Response Process,* 29 July 2005. This instruction establishes a Rapid Response Process (RRP) to accelerate the fielding of critical systems to meet theater-specific wartime needs.

AFI 63-501, *Air Force Acquisition Quality Program*, 31 May 1994.

AFI 63-1101, *Modification Management*, 17 July 2001. This instruction defines and describes the modification process and delegates Milestone Decision Authority (MDA) for modifications to the lowest appropriate level. This instruction provides guidance and procedures for managing modifications to systems, product groups, and material groups. Software-only changes are not addressed by this AFI.

AFI 63-1201, *Assurance of Operational Safety, Suitability, & Effectiveness*, 1 February 2000. This instruction implements AFPD 63-12, *Assurance of Operational Safety, Suitability, & Effectiveness*. It defines a process for establishing and preserving the safety, suitability, and effectiveness of Air Force systems and end-items over their entire operational life by preserving technical integrity via prudent use of disciplined engineering practices, assurance of proper operation and maintenance, effective supply systems, and field utilization and maintenance trends feedback to system program offices.

AFI 99-103, *Capabilities Based Test and Evaluation,* 6 August 2004. This instruction describes the planning, conduct, and reporting of cost effective test and evaluation (T&E) programs as an efficient continuum of integrated testing known as seamless verification.

AFMAN 63-119*, Certification of System Readiness for Dedicated Operational Test and Evaluation*, 22 February 1995.

AFMAN 99-113, *Space Systems Test and Evaluation Process Direction and Methodology For Space System Testing,* 1 May 1996. This manual provides a methodology for use by program managers, test engineers, test organization personnel, major command headquarters staffs, and others regardless of command level, involved in Space Systems Test and Evaluation (T&E).

AFI 10-501_AFSPCSUP, *Program Action Directives (PAD) and Programming Plans (PPlan),* 1 April 1998. This AFSPC supplement provides policy and delineates HQ AFSPC staff responsibilities to develop, publish, and control programming plans (PPlan) that direct the activation, inactivation, realignment or transfer of AFSPC installations and or units, and major system conversions.

AFI 31-101, *The Air Force Installation Security Programs,* 1 Mar 2003*,* establishes procedures for the designation of Protection Level required to initiate development of a physical security plan.

AFI 32-7086_AFSPCSUP, *Hazardous Materials Management*, 1 August 2006. This AFSPC supplement establishes procedures and standards that govern management of hazardous materials (HAZMAT) throughout the Air Force.

AFSPCHOI 10-1, *Capabilities-Based Operational Requirements Guidance*, 3 October 2005. This headquarters operating instruction defines responsibilities for developing and obtaining approval of ICD, CDD, CPD and related documents.

AFSPCI 10-102, *Air Force Space Command Concept Development*, 1 March 2006. This instruction implements Air Force policy and guidance in AFPD 10-28, *Air Force Concept Development*, and expands on the guidance in AFI 10-2801, *Air Force Concept of Operations Development*.

AFSPCI 10-1202, *Crew Operations*, 1 October 2004.

AFSPCI 10-1204, *Satellite Operations,* 1 June 2006. This instruction implements AFPD 10-12, *Space*, Air Force Instruction (AFI) 10-1201, *Space Operations* and SI 505-4, *Satellite Disposal,* by establishing guidance and procedures for satellite operations and disposal.

AFSPCI 36-283, *Space Training System Management, 2* August 2004*.* This guidance prescribes the roles and responsibilities, processes and procedures associated with planning, acquisition and sustainment of training systems that support Air Force Space Command (AFSPC) operations and maintenance activities.

AFSPCI 36-2202, *Mission Ready Training, Evaluation and Standardization Programs,* 3 February 2003. This instruction implements AFPD 36-22, *Military Training*, and AFI 36-2201, *Developing, Managing, and Conducting Training*. AFMAN 36-2234, *Instructional System Development*, AFH 36-2235 Vol 1, *Information for Designers of Instructional Systems*, and AFMAN 36-2236, *Guide Book for Air Force Instructors*, are used to develop training and evaluation programs for mission ready duties.

AFSPCI 36-2205, *Operation and Management of Space Training Devices,* 2 December 1997. This instruction implements AFPD 36-22, *Military Training* and AFPAM 36-2211, *Guide for Management of Air Force Training Systems.*

AFSPCI 63-102, *Acquisition, Turnover, and Support Policy for AFSPC Systems and Equipment*, 23 January 1996

AFSPCI 63-104, *Modifications to Systems and Implementation Approval Process,* 2 January 2007. It directs use of a common framework and procedures for managing the Modifications to Systems and Implementation Approval Process for all AFSPC aircraft, Space Launch, Launch Test Range, missile and space systems, equipment and components supported by AFSPC, Air Force Materiel Command (AFMC) and other supporting agencies.

AFSPCI 99-101, *Operational Test and Evaluation (OT&E) for Space and Intercontinental Ballistic Missile (ICBM) Systems,* 2 January 2001. This instruction establishes procedures and guidance for conducting Operational Test and Evaluation (OT&E) within AFSPC specifically for space and ICBM systems.

AFSPCPAM 38-9, *Organizations and Functions,* 1 May 2001. This pamphlet prescribes the organizational structure of HQ AFSPC and defines the functions and responsibilities for each staff agency.

SMCI 63-102, *Space Acquisition Board Process*, 7 September 2006. This instruction provides guidance on establishing the Program Executive Officer (PEO) Space Acquisition Board (PSAB) as the Milestone Decision process for DoD Space non-MDAPs. It also implementation of IPAs for space programs in the portfolio of the AFPEO/SP to assist in "consistent and disciplined" acquisition decisions for procuring non-MDAPs and ensuring mission success as the first guiding principle and defines SMC roles and responsibilities regarding the Defense Space Acquisition Board (DSAB)

SMCI 63-104, *Software Acquisition Instruction*, 29 March 2007. This instruction provides SMC personnel working on software-intensive program acquisitions with a list of requirements that should ensure successful acquisition of software-intensive systems

SECDEF Memo, *Time Critical Actions*, 22 March 2005. The memo identifies the need to expedite decisions regarding the fielding of new technology or warfighting equipment during times of crisis.

SECDEF Memo, *FY 2005 Rapid Acquisition Authority (RAA)*, 25 January 2005. This memorandum recognizes the ability of the office of the SECDEF to "make a written determination identifying equipment as urgently needed to eliminate a combat capability deficiency that has resulted in combat fatalities", in accordance with section 806 (c) of the Bob Stump National Defense Authorization Act for FY 2003.

DepSECDEF Memo, *Meeting Immediate Warfighter Needs*, 15 November 2004. This memo outlines the procedures, roles and responsibilities for the Joint Rapid Acquisition Cell (JRAC) Process. The JRAC Process facilitates meeting the urgent materiel and logistics requirements of the Combatant Commands.

Warfighter Rapid Acquisition Process Guidebook, 21 November 2005. This Guidebook outlines the procedures, roles and responsibilities for the Joint Rapid Acquisition Cell (JRAC) Process. The JRAC Process facilitates meeting the urgent materiel and logistics requirements of the Combatant Commands.

Abbreviations and Acronyms

A-Specs—System Specifications

ACTD—Advanced Concept Technology Demonstration

ADM—Acquisition Decision Memorandum

AETC—Air Training and Education Command

AF—Air Force

AFH—Air Force Handbook

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFOTEC—Air Force Operational Test and Evaluation Center

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRL—Air Force Research Lab

AFROCC—Air Force Requirements for Operational Capability Council

AFSPC—Air Force Space Command

AFSPCHOI—Air Force Space Command Headquarters Operating Instruction

AFSPCI—Air Force Space Command Instruction

AFSPCPAM—Air Force Space Command Pamphlet

ANG—Air National Guard

AoA—Analysis of Alternatives

AOR—Area of Responsibility

ATD—Advanced Technology Demonstration

ATSG—Activation/Transition Steering Group

B-Specs—Development Specifications

C-Specs—Productions Specifications

C2—Command and Control

C4—Command, Control, Communications, & Computer

CBP—Capabilities-Based Planning

CC—Commander

CCB—Configuration Control Board

CCD—Combat Capability Document

CCM—Change Control Manager

CDD—Capability Development Document

CDR—Critical Design Review/Commander

CIO—Chief Information Officer

CJCSI—Chairman Joint Chief of Staff Instruction

CJCSM—Chairman Joint Chief of Staff Manual

COCOM—Combatant Command

CONOPS—Concept of Operations

COTS—Commercial Off-the-Shelf

CPD—Capability Production Document

CSAF—Chief of Staff, United States Air Force

CV—Vice Commander

DAA—Designated Approval Authority

DIACAP—DoD Information Assurance Certification and Accreditation Process

DOC—Designed Operational Capability

DoD—Department of Defense

DoDD—Department of Defense Directive

DoDI—Department of Defense Instruction

DR—Deficiency Report

DRB—Deficiency Review Board

DT—Developmental Test

DT&E—Developmental Test and Evaluation

EC—Enabling Concept

EOL—End Of Life

FAA—Functional Area Analysis

FAM—Functional Area Manager

FDE—Force Development Evaluation

FNA—Functional Needs Assessment

FOC—Full Operational Capability

FSA—Functional Solution Assessment

FY—Fiscal Year

FYDP—Future Years Development Program

GOTS—Government Off-the-Shelf

HHQ—Higher Headquarters

HSI—Human Systems Integration

HPT—High Performance Team

HQ—Headquarters

IATT—Integrated Activation Transition Team

IAW—In Accordance With

IC—Intelligence Community

ICBM—Intercontinental Ballistic Missile

ICD—Initial Capabilities Document

iCDD—Initial Capabilities Development Document

ICT—Integrated Concept Team

IDR—Integration Deficiency Report

IIA—Integrated Investment Analysis

ILSP—Integrated Logistics Support Plan

IMT—Information Management Tool

IOC—Initial Operational Capability

IPA—Independent Program Assessment

IPAT—Independent Program Assessment Team

IPlan—Implementation Plan

IPP—Integrated Planning Process

IPS—Integrated Program Summary

IPT—Integrated Planning Team

ISD—Instructional System Development

ISWG—Intelligence Support Working Group

IT—Information Technology

ITT—Integrated Test Team

ITW/AA—Integrated Tactical Warning and Attack Assessment

IWS—Information Work Space

JCIDS—Joint Capabilities Integration and Development System

JFC—Joint Force Commander

JFCC—Joint Functional Component Command

JROC—Joint Requirements Oversight Council

JTF GNO—Joint Task Force-Global Network Operations

JUONS—Joint Urgent Operational Needs

JWS—Joint Warfighting Space

KDP—Key Decision Point

LCMP—Life Cycle Management Plan

LRP—Long Range Plan

MAJCOM—Major Command

MAT—Mission Area Team

MDA—Milestone Decision Authority

MDAP—Major Defense Acquisition Program

ME—Major Event

MER—Manpower Estimate Report

MILCON—Military Construction

MILSATCOM—Military Satellite Communication

MMSOC—Multi-Mission Space Operations Center

MS—Mission Support

MTAR—Mission/Task Analysis Report

NAF—Numbered Air Force

NASA—National Aeronautics and Space Administration

NI—Northern Command Instruction

NLT—No Later Then

NRO—National Reconnaissance Office

NSS—National Security Space

O&M—Operations and Maintenance

OA—Operational Acceptance

OAB—Operations Approval Board

OAP—Operations Approval Panel

OASB—Operations Approval Support Board

OCA—Original Classification Authority

OCR—Office of Corollary Responsibility

OGV—Operations Group Standardization and Evaluation Section

OMAR—Objectives/Media Analysis Report

OMRT—Operational and Maintenance Responsibility Transfer

OPCON—Operational Control

OPR—Office of Primary Responsibility

ORS—Operationally Responsive Vehicle

OSS&E—Operational Safety, Suitability and Effectiveness

OT—Operational Test

OT&E—Operational Test and Evaluation

OV—Operational View

OWTT—Operational Wing Transition Team

PAD—Program Action Directive

PBL—Performance Base Logistics

PCA—Physical Configuration Audit

PDR—Preliminary Design Review

PEM—Program Element Monitor

PM—Program Manager

POM—Program Objective Memorandum

PPBE—Planning, Programming, Budgeting, and Execution

PPlan—Programming Plan

PPP—Program Protection Planning

PROTAF—Program Task Force

PRR—Production Readiness Review

PSAB—Program Executive Officer (PEO) Space Acquisition Board

PTO—Participating Test Organizations

R&D—Research and Development

RAA—Required Assets Availability

RDS—Air Force Records Disposition Schedule

RDSMO—Research and Development Space and Missiles Operations

RDT&E—Research Development Test and Evaluation

RRB—Readiness Review Board

RSA—Rapid System Acquisition

RSR—Requirements Strategy Review

RTO—Responsible Test Organization

S&T—Science and Technology

SATCOM—Satellite Communications

SBIRS—Space Based Infrared System

SC—Space Control

SCA—Satellite Control Authority

SDR—System Design Review

SDTW—Space Development and Test Wing

SECDEF—Secretary of Defense

SFA—Space Force Application

SFE—Space Force Enhancement

SI—USSTRATCOM Instruction

SIMCERT—Simulator Certification

SMC—Space and Missile Systems Center

SMCI—Space and Missile Systems Center Instruction

SME—Subject Matter Expert

SMP—Strategic Master Plan

SOA—Service Oriented Architectures

SORTS—Status of Resources and Training Systems

SPD—System Program Director

SRR—System Requirements Review

SS—Space Support

SSE—SATCOM System Expert

SSO—Single Satellite Operations

STAR—System Threat Assessment Report

STMP—System Transition Management Plan

STP—System Training Plan

SUPP—Supplement

SV—Satellite Vehicle

T&E—Test and Evaluation

TACON—Tactical Control

TACSAT—Tactical Satellite

TBD—To Be Determined

TEMP—Test and Evaluation Master Plan

TO—Technical Order

TOA—Turnover Agreement/ Total Obligation Authority

TOC—Turnover Certificate/Total Ownership Cost

TORR—Turnover Readiness Review

TPRP—Trial Period Review Panel

TPT—Training Planning Team

TPWG—Test Planning Working Group

TRAR—Training Requirements Analysis Report

TRR—Test Readiness Review

TSBAR—Training Systems Basis Analysis Report

TSP—Transition Support Plan

TSRA—Training System Requirements Analysis

TTP—Tactics, Techniques & Procedures

UCC—Unified Combatant Command

UON—Urgent Operational Needs

USC—United States Code

USSTRATCOM—United States Strategic Command

UTC—Unit Type Code

WITRB—Watch Item Review Board

WRAP—Warfighter Rapid Acquisition Process

Terms

Acquisition Decision Memorandum (ADM)—The Acquisition Decision Memorandum (ADM) documents program direction from the MDA because of KDP or Build Approval activities, specifically addressing DSAB/PSAB decisions, establishing exit criteria for the next phase, and other direction to the SPD/PM. The signed ADM authorizes or prohibits the space program to move into the next acquisition phase.

Advanced Concept Technology Demonstration (ACTD)—ACTDs are used to determine military utility of proven technology and to develop the concept of operations that will optimize effectiveness. The ACTD is one of three technology transition mechanisms. The other two are ATDs and experiments.

Capability Development Document (CDD)—The CDD contains the information needed to develop a system that will provide the capabilities required by the warfighter. It will result in an affordable capability that can be effectively acquired, supported, and deployed.

Capability Production Document (CPD)—The CPD identifies the production attributes and quantities for an increment of an acquisition program. It provides firm, measurable, and testable requirements in the form of performance and support attributes for the production and deployment of an acquisition program.

Change Control Manager (CCM)—The person responsible for the operational integrity of the system(s) under their purview and is synonymous to an OAP or CAP Chair.

Combat Capability Document (CCD)—The CCD is submitted to Air Force Chief of Staff (CSAF) from HQ USAF, a MAJCOM, or Combatant Commander that which is used during the Rapid Response Process to accelerate the fielding of critical systems to meet theater-specific wartime needs.

Deficiency—The degree of inability to successfully accomplish one or more mission tasks or functions required to achieve mission or mission area objectives. In contract management – any part of a proposal that fails to satisfy the government's requirements (Defense Acquisition Acronyms and Terms).

Deficiency Report (DR)—Report governed by TO-00-35D-54 that documents Deficiencies.

Full Operational Capability (FOC)—Full attainment of the capability to effectively employ a weapon, item of equipment or system of approved specific characteristics, which is manned and operated by a trained, equipped and supported military force or unit.

Implementing Command—The command (usually Air Force Materiel Command or AFSPC) providing the majority of personnel in direct support of the program manager responsible for development, production, and sustainment activities.

Initial Capabilities Document (ICD)—The ICD establishes the need for a materiel solution to address a capability gap identified during the JCIDS analysis. It is supported by the FAA, FNA, and FSA.

Initial Capability Development Document (iCDD)—The iCDD is a Space Acquisition unique document required to support the NSSAP 03-01 acquisition process. The iCDD is intended to identify Key Performance Parameters (KPPs) to ensure that warfighter input is received before critical decisions are made through the design process.

Initial Operations Capability (IOC)—That first attainment of the capability to effectively employ a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained and equipped personnel necessary to operate, maintain, and support the system. It is normally defined in the CDD. NOTE: IOC will be event-driven and not tied to a specific future date.

Integrated Concept Team (ICT)—The ICT is normally an action-officer level working group, which assists the Command Lead in defining the requirement and coordinating the requirements documents.

IOC/FOC Readiness Review Board (RRB)—HQ AFSPC review board that determines the readiness of a system for IOC or FOC declaration, and recommends the appropriate declaration to AFSPC/A3.

Integrated Program Summary (IPS)—The purpose of the IPS is to provide a concise record that documents a NSS program's accomplishments, status, and plans at each KDP and Build Approval. The IPS is not a document that goes through coordination. The program office generates the IPS by incorporating a minimal set of pre-approved material (e.g., capability documents, acquisition strategy, test and evaluation master plan [TEMP]) and newly generated material that covers the IPS subject matter.

Milestone Decision Authority (MDA)—The individual designated to approve entry of an acquisition program into the next phase.

Milestones—Major decision points that separate the phases of an acquisition program.

Operating Command—Those commands operating a system, subsystem, or item of equipment.

Operational Acceptance—Formal acknowledgement by the operational community that an implemented change, modification, or new acquisition meets the minimum operational requirements of the system. That point in time at which the AFSPC formally accepts, for that site, responsibility and accountability for the operational and organizational maintenance of the acquired equipment from the Materiel Wing.

Operational Control (OPCON)—Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command. Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning task, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command.

Operational Requirement—A system capability or characteristic required to accomplish approved capability needs. Operational (including supportability) requirements are typically performance, but they may also be derived from cost and schedule. For each parameter, an objective and threshold value must be established.

Operational Test and Evaluation (OT&E)—Test and evaluation conducted in as realistic an operational environment as possible to estimate the prospective system's operational effectiveness and operational suitability. In addition, operational test and evaluation provides information on organization, personnel requirements, doctrine and tactics. In turn, it also provides data to support or verify material in operating instructions, publications, and handbooks.

Prime Mission System—Any weapon or support system that requires training for operators, maintainers, or support personnel.

Program Executive Officer (PEO)—A military or civilian official who has primary responsibility for directing several Major Defense Acquisition Programs (MDAPs) and for assigned major system and non-major system acquisition programs.

Program Manager (PM)—The PM is the designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs.

Rapid Response Process (RRP)—An expedited process for documenting and staffing materiel solutions to urgent, time-sensitive requirements. The process is fully described in AFI 63-114, Rapid Response Process.

Required Assets Availability (RAA) Date—A date agreed to by HQ AF Materiel Command and the using command where sufficient equipment, personnel, and logistics elements are available to the operational command to begin a trial period for equipment operation and support capability before initial operational capability declaration. Logistics elements include approved operational support equipment, critical spares, verified technical manuals, and training programs and courses.

Satellite Control Authority (SCA)—Authority to command and control the spacecraft.

System Turnover—The milestone representing formal transfer of full budgetary, logistical support, follow-on training, operations and maintenance responsibilities from the developing agency to the operating organization under the oversight of HQ AFSPC.

Tactical Control (TACON)—Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements and maneuvers necessary to accomplish missions or task assigned. Tactical control is inherent in operational control.

Technical Data—Data that may include engineering drawings, lists, specifications, standards, process sheets, manuals and documentation, technical reports on orders, and catalog items.

Test and Evaluation Master Plan (TEMP)—The TEMP documents the overall structure and objectives of the T&E program. It provides a framework within which to generate detailed T&E plans and it documents schedule and resource implications associated with the T&E program.

User—An operational command or agency that receives or will receive benefit from the acquired system. Combatant Commanders and their Service components are the users.

Validation—The review of documentation by an operational authority other than the user to confirm operational capability. Validation is a precursor to approval.

Verification—To evaluate progress/procedures and effectiveness of evolving system products and processes and to measure specification compliance.

Warfighter Urgent Operational Needs (WUON) Process—An AF process to rapidly field capabilities to satisfy needs identified during conflict or crisis situations that are life-threatening or combat mission threatening, that are unforeseen military requirements and must be resolved as soon as practical.

Attachment 2

SPACE CAPABILITIES PROCESSES AND FUNCTIONS MATRIX

CONCEPT STUDIES (PRE KDP-A)	OPR	TEAM
Command Lead Designated	AFSPC/A5	
Program Element Monitor Designated	AFSPC/A5	
ICD High Performance Team Established	AFSPC/A5	HPT
ICD Development	AFSPC/A5	
EC /System CONOPS Development	AFSPC/A3	
Operational Architecture Developed (OV-1)	AFSPC/A3	
ICT Established	AFSPC/A5	ICT
AoA Report Finalized	AFSPC/A5	ICT
IPT Established	Materiel Wing	IPT
ITT Established	Materiel Wing	ITT
T&E Strategy Developed	Materiel Wing	ITT
TPT Established	AFSPC/A5	TPT
Operational Architecture Updated (OV-2, OV-4, OV-5)	AFSPC/A3	
iCDD HPT Established	AFSPC/A5	HPT
iCDD Developed	AFSPC/A5	HPT
Acquisition Strategy Developed	Materiel Wing	
System Program Office Established	Materiel Wing	
iCDD Approved	AFSPC/A5	
MAT Established	AFSPC/A8	MAT
Architecture Certified	AFSPC CIO	
IPA Conducted	Materiel Wing	IPAT
ADM Approval	MDA	

CONCEPT DEVELOPMENT (PHASE A)	OPR	TEAM
STAR Developed	AFSPC/A2	
EC Updated	AFSPC/A3	
AFOTEC Involvement Decision Made	Testing Agency	ITT
TSRA Conducted	Materiel Wing	TPT
STP Developed	AFSPC/A5	TPT
SRR	Materiel Wing	IPT
CDD HPT Established	AFSPC/A5	HPT

CDD Development	AFSPC/A5	HPT
Acquisition Strategy Updated	Materiel Wing	
Initiate logistics support plans	Materiel Wing	
Initiate IPS	Materiel Wing	
SDR	Materiel Wing	IPT
Initial TEMP Approved	Materiel Wing	ITT
IPA Conducted	Materiel Wing	IPAT
ADM Approval	MDA	
PRELIMINARY DESIGN (PHASE B)	**OPR**	**TEAM**
STAR Updated	AFSPC/A2	
EC Updated	AFSPC/A3	
Program Protection Plan (PPP)	Materiel Wing	
MER Initiated	AFSPC/A1	
Operational Organization (Unit) Identified	AFSPC/A3	
Preliminary Design Review Conducted	Materiel Wing	IPT
STP Updated	AFSPC/A5	TPT
CDD Updated	AFSPC/A5	HPT
TEMP Updated	Materiel Wing	ITT
Architectural Products (OVs, SVs, TVs) completed	AFSPC/A3	
STMP Developed	AFSPC/A5	ICT
Acquisition Strategy Updated	Materiel Wing	
APB Developed	Materiel Wing	
Architecture Certified	AFSPC CIO	
IPA Conducted	Materiel Wing	IPAT
ADM Approval	MDA	
COMPLETE DESIGN (PHASE C)	**OPR**	**TEAM**
STAR Updated	AFSPC/A2	
EC Updated	AFSPC/A3	
TOA Developed/Approved	Materiel Wing	ICT
CDR	Materiel Wing	IPT
DT&E Plan Developed	Materiel Wing	ITT
Develop and document logistics management	Materiel Wing	
Validate and approve logistics management	AFSPC/A5	
Program Protection Plan (PPP)	Materiel Wing	

System Configuration Control Board Established	Materiel Wing	CCB
STP Updated	AFSPC/A5	TPT
Operating Concept Developed	AFSPC/A3	
CPD HPT Established	AFSPC/A5	
CPD Developed	AFSPC/A5	HPT
TEMP Updated	Materiel Wing	ITT
Architectural Products (OVs, SVs, TVs) updated	AFSPC/A3	
AFSPC PPlan Developed	AFSPC/A8	
Architecture Certified	AFSPC CIO	
ATSG Established	AFSPC/A5	ATSG
PROTAF Established	AFSPC A5 & A8	PROTAF
IATT Established	Materiel and Operational Wing	IATT
IPA Conducted	Materiel Wing	IPAT
ADM Approval	MDA	
BUILD AND OPERATIONS (PHASE D)		
RAA Date Established	AFSPC/A5	ICT
Operational Test and Evaluation Test Plan Developed	AFSPC/A3	ITT
IOC Plan Developed	AFSPC/A5	ICT
Program Protection Plan (PPP)	Materiel Wing	
Manpower in place	Operating Unit	
Acquisition Strategy Updated	Materiel Wing	
TTP development and publication	AFSPC/A3	
DT& E Deficiency Review Board Established	Materiel Wing	ITT
Certificate of System Readiness to Enter OT&E Completed	Materiel Wing	ITT
System submitted for OAP Process (ITW/AA)	Materiel Wing	
Type 1 training completed	Operating Unit & Materiel Wing	TPT
SIMCERT completed	AFSPC/A3	TPT
1st Launch	Materiel Wing	
Operational Testing Readiness Review Completed	AFSPC/A3	ITT
Operations and Maintenance Responsibility Transfer	AFSPC/A3	ICT
IOT&E or FDE Completed	Testing Agency	ITT
O&M PEM Designated	AFSPC/A3	
Entry into Trial Period approved	AFSPC/A3	ITT

Operations Acceptance Completed	AFSPC/A3	ICT
Turnover Completed	AFSPC/A5	ICT
A3 Command Lead Designated/Transition	AFSPC/A3 & A5	
Mission Activation	USSTRATCOM	
O&M Initiated /Sustainment	AFSPC/A4/6	
IOC Declared	AFSPC/A3	
System Certification Completed	AFSPC/A3	
FOC Declared	AFSPC/A3	
Full Rate Production Decision (IPA conducted and ADM Approval)	Materiel Wing	IPAT

Attachment 3

SAMPLE TURNOVER AGREEMENT

TURNOVER AGREEMENT FOR THE

(Project Name)

APPROVED BY:

_____	_____
SIGNATURE BLOCK, Col, USAF	Date
Commander, (Materiel Wing)	

_____	_____
SIGNATURE BLOCK, Col, USAF	Date
Commander, (Operating Organization)	

_____	_____
SIGNATURE BLOCK, Col, USAF	Date
Chief, XX Division	
Directorate of Plans and Requirements	

TABLE OF CONTENTS

1.0. INTRODUCTION.

This Turnover Agreement (TOA) specifies the agreement between Headquarters Air Force Space Command (HQ AFSPC), Space and Missile Systems Center **(insert program office title)** Program Office (**insert developing agency**), and the **(insert operating organization)** on events or actions necessary for the **(project name)** System Turnover from the developer to the user.

1.1. PURPOSE.

This agreement serves as a basis of mutual understanding for turnover of the **(project name)** system deliverables. This agreement also forms the basis for signing the Turnover Certificate (TOC), which when jointly signed, formally completes project/system turnover.

2.0. INTEGRATED CONCEPT TEAM (ICT).

The **(project name)** ICT is a formally designated group established to assist in preparing the **(project name)** Turnover Agreement and ensures the appropriate signatures are obtained on the TOA Checklist as events/actions are completed. The TOA Checklist, attached as Appendix A of this agreement, documents the events/actions, which define the requirements for project/system turnover. The ICT includes, but is not limited to, representatives from HQ AFSPC/A5/A3, **(insert developing agency)** and the **(insert operating organization)**. The group functions under the leadership of the Command Lead until all elements of turnover are completed.

A senior ICT, comprised of O-4/5 or equivalent representatives from ICT participant organizations, is also to be used on a less frequent and/or as needed basis. Its objective includes, but is not limited to, reviewing progress of the ICT, resolving issues that cannot be successfully dispositioned, and determining equitable and appropriate action plans for unexpected situations.

2.1. ICT METHODOLOGY.

The ICT is responsible for monitoring each event/action on the TOA Checklist and for coordinating and directing group activities associated with the completion of each item. An Office of Primary Responsibility (OPR) and an Office of Corollary Responsibility (OCR) are assigned to each event /action on the TOA Checklist. The OPR assigned to a specific event/action tracks and reports to the ICT the progress, problems, and recommended corrective actions, for that item. The OPR, in coordination with the OCR, is responsible for documenting completion of the event/action. The OPR signs the TOA Checklist signifying completion. The OCR signs the TOA Checklist signifying concurrence. When the TOA Checklist is completed, (**insert developing agency**) will prepare the TOC for signature.

2.2. TURNOVER READINESS REVIEW (TORR).

(**Insert developing agency**) (in conjunction with HQ AFSPC and **(insert operating organization)**) will sponsor a Turnover Readiness Review (TORR) as defined in section 2.0 of the Turnover Plan. A final assessment of **(project name)** turnover readiness status and a recommendation for turnover is made at the TORR. The recommendation will be made as either 1) accept, 2) accept with deficiencies, or 3) do not accept. If **(project name)** is ready for turnover, the ICT will present the TOC for signature to record its successful completion. If **(project name)** is ready for turnover but has deficiencies, (**insert developing agency**) will publish a deficiency report and include impacts to operation, corrective actions required, and schedules for implementation of corrective actions. This report will be provided by (**insert developing organization**) as an attachment to the TOC. If **(project name)** turnover is not accepted, senior members from HQ AFSPC/A5/A3, (**insert developing agency**) and **(insert operating organization)** will determine an equitable way ahead and the ICT will execute this direction.

2.2.1. The TOC serves as the documentary evidence of the completion of all requirements agreed to in the TOA and signifies project/system turnover from the developer to the user. Upon signing the TOC, the user formally accepts full funding and physical accountability for the project/system.

2.2.2. At any time, operational requirements not currently on the system baseline may be submitted to HQ AFSPC/A5/A3 for consideration. If validated and approved, they will be addressed by the development or sustainment organization and governed by this TOA as appropriate. Any new requirement changing the Critical Design Review baseline should be primarily considered an action after turnover.

3.0. (Project Name) SYSTEM DESCRIPTION.

The (project name) upgrade provides (project high-level description).

4.0. COMPLIANCE DOCUMENTS AND REFERENCES.

4.1. COMPLIANCE DOCUMENTS.

Contract #

System Specification for the project.

Turnover Plan, signed date TBD

4.2. REFERENCES.

AFI 99-103

AFSPCI 63-XXX

Appendix A

TURNOVER AGREEMENT (TOA) CHECKLISTS

(Project Name) Turnover Agreement (TOA) Checklist		
Event/Action	**OPR Signature/Date**	**OCR Signature/Date**
1. TOA Approved and Signed		
	Materiel Wing	HQ AFSPC/A5XX
2. ICT POC List Established		
	Materiel Wing	HQ AFSPC/A5XX
3. Establish Hardware Product Baseline		
	HQ AFSPC/A5XX	Materiel Wing
4. Establish Software Product Baseline		
	HQ AFSPC/A5XX	Materiel Wing
5. Establish Technical Data Product Baseline		
	HQ AFSPC/A5XX	Materiel Wing
6. Disposition Plan for Equipment Removal Submitted		
	Materiel Wing	HQ AFSPC/A5XX
7. System Engineering Process Checklist Completed		
	Materiel Wing	HQ AFSPC/A5XX
8. Product Support Checklist Completed		
	Materiel Wing	HQ AFSPC/A5XX
9. Operations Readiness Completed		
	Materiel Wing	HQ AFSPC/A5XX
10. Turnover Readiness Review Completed		
	Materiel Wing	HQ AFSPC/A5XX
11. Turnover Certificate Signed		
	Materiel Wing	HQ AFSPC/A5XX

System Engineering Process Checklist		
Event/Action	**OPR Signature/Date**	**OCR Signature/Date**
1. DT&E Testing Completed		
	Materiel Wing	HQ AFSPC/A5XX
2. IDR Problem Reporting and Disposition Process Implemented		
	Materiel Wing	HQ AFSPC/A5XX
3. Functional Configuration Audit (FCA/PCA) Completed		
	Materiel Wing	HQ AFSPC/A5XX
4. Certification of System Readiness for OT&E Completed		
	Materiel Wing	HQ AFSPC/A5XX
5. Operational Procedures in Place		
	Operating Organization	Materiel Wing
6. Security Interim Approval To Operate Granted		
	Materiel Wing	Operating Organization
7. FDE Test Plan Approved		
	HQ AFSPC/A5XX	Materiel Wing
8. FDE Completed and Final Report Reviewed and Accepted		
	HQ AFSPC/A5XX	Materiel Wing
9. Security Test & Evaluation Completed		
	Materiel Wing	Operating Organization
10. System Security Architecture Authorization Package Accredited & Delivered		
	Materiel Wing	Operating Organization
11. Installation or modification complete and meets specified performance requirements		
	Materiel Wing	Operating Organization
12. Deficiency Reports Completed (including action plans if required)		
	Materiel Wing	HQ AFSPC/A5XX
13. CCB Actions Closed		
	Materiel Wing	HQ AFSPC/A5XX
14. Physical Configuration Audit (PCA) Completed		
	Materiel Wing	HQ AFSPC/A5XX
15. Acceptance Form (AF Form 1261) with attached DD Form 250 Completed and Signed		
	Materiel Wing	Operating Organization

Product Support Checklist		
Event/Action	**OPR Signature/Date**	**OCR Signature/Date**
1. Technical Data Package Delivered		
1a. Engineering Drawings Delivered		
	Materiel Wing	Operating Organization
1b. Work Unit Code (WUC) Manuals Delivered		
	Materiel Wing	Operating Organization
1c. COTS Manuals Delivered		
	Materiel Wing	Operating Organization
1d. Operational Technical Orders (TO) Manuals Verified and Delivered		
	Materiel Wing	Operating Organization
1e. System Specifications Authenticated and Configured		
	Materiel Wing	HQ AFSPC/A5XX
1f. Item Performance Specifications Authenticated and Configured		
	Materiel Wing	HQ AFSPC/A5XX
1g. Spare Provisioning Lists Delivered		
	Materiel Wing	Operating Organization
1h. Software Development Package Authenticated and Configured		
	Materiel Wing	HQ AFSPC/A5XX
2. Initial Operations Training in Place		
	Materiel Wing	Operating Organization
3. Operations Training System in Place		
	Materiel Wing	Operating Organization
4. Maintenance Levels Identified		
	Materiel Wing	HQ AFSPC/A4
5. Spares On-Site		
	Materiel Wing	HQ AFSPC/A4
6. Support Equipment On-Site		
	Materiel Wing	HQ AFSPC/A4

Operations Readiness Checklist		
Event/Action	**OPR Signature/Date**	**OCR Signature/Date**
1. Facilities Ready to Turn-on		
	Operating Organization	Materiel Wing
2. System Operations Ready to Turn-on		
	Operating Organization	Materiel Wing
3. Manpower billets established and filled		
	Operating Organization	HQ AFSPC/A5XX
4. Trained and Certified Operators in Place and unit Training, Standardization, and Evaluation Programs updated & compliant with HHQ instructions		
	Operating Organization	Materiel Wing
5. System Administration Ready		
	Operating Organization	Materiel Wing
6. Operations Manuals in Place		
	Operating Organization	Materiel Wing
7. Organizational Operations Support Ready		
	Operating Organization	Materiel Wing
8. Organizational Hardware and Software Support Ready		
	Operating Organization	Materiel Wing
9. Depot Operations Support Ready		
	Materiel Wing	HQ AFSPC/A5XX
10. Depot Hardware and Software Support Ready		
	Materiel Wing	HQ AFSPC/A5XX
11. DR Process/Modification Process Verified and Validated		
	Operating Organization	Materiel Wing
12. Back-ups Validated and Ready		
	Operating Organization	Materiel Wing
13. Turn-back Contingency Plan in Place		
	Operating Organization	Materiel Wing
14. Received Authority to Operate		
	Materiel Wing	HQ AFSPC/A5XX

Attachment 4

**INITIAL OPERATIONAL CAPABILITY (IOC) AND FULL OPERATIONAL
CAPABILITY (FOC)**

A4.1. Purpose. This attachment is designed to standardize the process for declaring IOC/FOC.

A4.2. Purpose for Declaring IOC/FOC. The purpose of declaring IOC and FOC is to announce an initial or full operational capability of a new or upgraded system to unified commanders, higher headquarters and AFSPC organizations, as applicable. For upgraded systems, IOC/FOC would only be needed if the system provides a significant new capability.

A4.3. IOC/FOC Declaration. AFSPC/CC is the sole authority to declare IOC or FOC for an AFSPC system and has delegated responsibility to the AFSPC/A3. IOC/FOC is declared when an acquired system meets the IOC/FOC Evaluation Criteria as defined in the system's ORD/CDD. If a system does not have an ORD/CDD, the applicable system's ICT will develop and document appropriate IOC/FOC Evaluation Criteria.

A4.4. IOC and FOC Terms.

A4.4.1. IOC and FOC are terms that apply to an operational system that goes through an acquisition process. These terms do not apply to units or organizations. A new unit would be "activated," not declared IOC. However, a newly activated unit is often part of the IOC decision relating to the system the unit operates. There is no specific Air Force guidance directly linking a specific unit's Status of Resources and Training Systems (SORTS) C-Rating with IOC or FOC. However, IOC and FOC indicate a certain capability or readiness and SORTS should be a consideration for IOC declaration. AFSPC should strive to achieve a C-Rating of at least C-3 for IOC and a C-Rating of C-1 for FOC.

A4.4.2. Multiple IOCs. The AFSPC/A3 may declare multiple IOCs for systems or equipment supported by multiple SORTS DOC statements. Additionally, multiple IOCs may be declared for incremental system deliveries, such as for satellite launches leading up to a full constellation.

A4.4.3. FOC Declaration. FOC declaration applies only to those systems having an FOC declaration as part of their acquisition and deployment strategy, as defined in the ORD/CDD. If a system does not have an ORD/CDD, the applicable system's ICT will develop and document appropriate IOC/FOC Criteria. Nominally, FOC is not declared until the Materiel Wing has delivered the full system, as defined in the system's ORD/CDD, and corrected all the system's discrepancies.

A4.4.4. FOC/IOC Simultaneously Occurrence. FOC may occur simultaneously with IOC, especially with one-of-a-kind systems. But it usually occurs later, especially if it involves bringing a certain number of like systems on line.

A4.4.5. Mission Availability and Activation. Once the system can accomplish its mission as defined in the CDD/ORD; generally after OA and turnover, prior to IOC, the applicable Component Commander (JFCC SPACE [Space Capabilities] or JFT-GNO [MILSATCOM Mission Payload]) will determine when the operational unit(s) will begin using the system (mission activation). The commander then will announce to the appropriate COCOM when the system is available to support operations along with any limitations. When mission activation is declared prior to IOC, this period will be treated as a Trial Period to exercise and refine operational procedures, training, documentation, logis-

tics functions and all other processes required to support the mission. This period should also be used to surface any problems or deficiencies so they may be resolved before IOC declaration.

A4.5. IOC/FOC Criteria. IOC declaration is event-driven and not schedule-driven. The IOC/FOC Criteria defines the events (operations, equipment, logistics, manpower, facilities, etc.) that must be met in order to declare IOC/FOC. The ICT will tailor the criteria as appropriate for each system. The following types of events/items should be included in the criteria:

Table A4.1. IOC/FOC Criteria.

1.	Successfully meeting the RAA requirements and date
2.	Successfully completing an Operational Test and Evaluation (normally conducted by the Air Force Operational Test and Evaluation Center (AFOTEC), 17th Test Squadron or 576th Flight Test Squadron) and resolution of discrepancies
3.	Successfully completing a Trial Period that demonstrates the system and personnel can perform its assigned mission
4.	Proper logistics elements to include operational support equipment, spares, verified technical manuals, training programs and training courses are in place
5.	Adequate SORTS C-Rating to reflect the appropriate level of system performance, quantities received, operator and maintainer proficiency and an adequate support capability (this includes the operational structure, training, manpower and equipment needed to operate and maintain the system)
6.	Development of other miscellaneous documents during acquisition phases leading up to IOC/FOC. The following is a sample list of the types of documents required prior to OT&E. This list is not all inclusive and should be tailored for each program
7.	Approved Concept of Operations
8.	Approved ORD/CDD or ICT-developed and documented IOC/FOC Criteria
9.	Approved System Training Plan (STP)
10.	Approved logistics support plan, Maintenance Concept and the Integrated Manpower, Personnel, and Comprehensive Training and Safety (IMPACTS)
11.	Established Training and Evaluation Programs
12.	Trained and Certified Operators
13.	Approved Test and Evaluation Master Plan (TEMP)
14.	Approved P-PLAN and Unit Type Code (UTC)
15.	Approved SORTS DOC Statement
16.	Approved Manpower Estimate Report (MER)
17.	Approved Operational Protection Guides
18.	Authorized Manpower
19.	Approved physical security plan
20.	Approved system security Designated Approval Authority (DAA) accreditation to operate the system

A4.6. IOC/FOC Declaration Process.

A4.6.1. **Events Leading Up To Declaration.**

A4.6.1.1. During the acquisition program, the RAA requirements and date are established along with the IOC/FOC Evaluation Criteria.

A4.6.1.2. After the system is delivered, operational units are activated (as required) and appropriate levels of trained personnel are in-place, an OT&E is conducted by an independent, objective operational test agency.

A4.6.1.3. Following completion of OT&E and resolution of discrepancies, a Trial Period is entered. Trial Period demonstrates to the operations commander that the unit/system can perform its designed operational mission(s). The length of this Trial Period may vary significantly and, in some cases may not exist at all (in cases where the Trial Period may have occurred prior to or during the OT&E). Each system's Trial Period length should be defined in the system's ORD/CDD or by its ICT. Trial Period ends when AFSPC/A3 declares OA or declares IOC.

A4.6.1.4. For systems with an FOC declaration, the full system is delivered and remaining system deficiencies are corrected. Once complete, AFSPC/A3 declares FOC.

A4.6.2. **IOC/FOC Declaration Staffing.** HQ AFSPC/A5 is responsible for staffing the overall decision on whether or not to declare IOC or FOC. Within HQ AFSPC the system's Functional Area Manager (FAM), with support from the system's ICT, ensures the IOC/FOC declaration is staffed for approval. Two methods are available to staff the decision. The first is the IOC/FOC Readiness Review Board and is normally used for Acquisition Category (ACAT) I programs or programs where a formal board is necessary. The second method is a Staff Summary Sheet (SSS) coordination. HQ AFSPC/A5 will decide which method is appropriate for each program.

A4.6.2.1. IOC/FOC Readiness Review Board. When HQ AFSPC/A5 determines that an IOC/FOC Readiness Review Board is needed, the AFSPC/A3 will chair the board. Selected HQ AFSPC Directorates (A1, A4/6, A5, A7, A8/9, FM, and SE), the applicable NAF (14 AF for Space and 20th AF for ICBM), plus wing(s), groups and squadron(s) are represented. In addition, the appropriate COCOM, AFOTEC and Space ICT may be invited. The FAM, with support from the system's ICT, develops a briefing addressing all areas from the system's IOC/FOC Criteria. The FAM briefs this information to the AFSPC/A3, with HQ AFSPC Directorates providing additional details/concerns as appropriate. The decision on whether or not to declare IOC/FOC will be made by the AFSPC/A3 after hearing all concerns and recommendations from the members of the IOC/FOC Readiness Review Board. Members of the IOC/FOC Readiness Review Board will not have veto authority.

A4.6.2.2. SSS Coordination. When HQ AFSPC/A5 determines that an IOC/FOC Readiness Review Board is not required, the HQ AFSPC FAM, with support from the system's ICT, will develop a SSS that summarizes the particular system's readiness based on the IOC/FOC Evaluation Criteria. The Functional Area Manager will coordinate the SSS with the same offices as listed in paragraph **5.2.1.**

A4.7. Mission Declaration/Activation Messages. Following the AFSPC/A3 IOC declaration to CDRUSSTRATCOM, the subordinate commander (the appropriate JFCC) will assess and declare, via official message, to CDR USSTRATCOM that the mission is operational, including any limitations.